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THE FINNISH FARMERS IN AMERICA[1]

The origin and early history of the Finnish people is somewhat controversial. There are many theories as to their source and wanderings prior to their settlement in the peninsula on the upper Baltic Sea which we call Finland. In the twelfth century these peaceful people were conquered and christianized by the Swedes, and remained under Swedish rule until 1809, when after a series of wars, Sweden was forced to cede Finland to Russia. Under the rule of Sweden, Finland enjoyed ample protection of certain constitutional rights and privileges; these same rights were continued under Russian rule until 1899. At that time Czar Nicolas II issued a manifesto forcibly taking these rights away in an attempt to Russianize the Finns. In this way they were dominated until the Russian Revolution in 1917. On December 7 of that year Finland declared itself an independent nation.

The characteristics of Finnish people in general are very interesting. In appearance, the Finns vary somewhat due to contacts with people of different origins. This may also be said of other national groups which are of mixed blood. The Finns who drifted into Sweden became more or less a combination of Swedish and Finnish, tall, fair complexioned, and well developed, but this description cannot be given for all Finns. They are apt to be tall occasionally, but most of them are not large of stature, nor do they possess unusual physical development. As a rule the majority of the Finnish people are fair complexioned but occasionally there are a few who are dark. A light-haired mother, when asked about a dark-haired child, once said: "the men from Spain, they sail to Finnish shores—long, long ago—and some of them stay and marry Finnish women and now sometimes our children have the Spanish color." According to one

[1] The author acknowledges the aid and helpful suggestions of his friend, Everett E. Edwards, in the preparation of this article.

observer, "the Finns appear to have rather a surprising similarity of appearance due perhaps to the fact that they exhibit so little facial expression." Their stamina and good physical development, which are attributed to their habit of taking steam baths, eating coarse bread and plain food, and not being addicted to dissipation also deserve mention.[2]

Although most of the Finnish immigration to the United States has been since 1850, the first Finns came many years before that time. As near as can be determined, the first arrived at the Swedish colony on the Delaware River, aboard the Swedish vessel *Chartias* on November 7, 1641. Nearly all of the colonists aboard were Finns, the Swedes as a whole looking upon the colony as an undesirable place to go. Among the arrivals were eight hired soldiers, two soldier prisoners and two misdemeanants sent for punishment, and twenty-three others, including hired servants, a nobleman, and a priest, besides the regular colonists. There also may have been a few Finns in the first Swedish expedition in 1637. By 1648, the Finnish colonists had become quite prosperous, and letters were sent to their relatives and friends in Sweden and Finland to come and share their new found prosperity. The news of this prosperity soon traveled, and by 1651 the Finns were beseeching the Government to send them to the new colony. This caused Queen Christina to wonder "as there was enough land to be had in Sweden."

Johan Printz, a Swede who had once lived in Finland and had a knowledge of the Finnish language, was governor of New Sweden from 1642 to 1653. By all accounts, he had many disagreements with the settlers and was harsh in his treatment of them, causing many to leave and drift into the English and Dutch settlements. In 1683 many of these early colonists on the Delaware came under the influence of William Penn. His Quaker advisers found that the Finns and other settlers were

[2] Eugene Van Cleef, *Finland: The Republic Farthest North* (Columbus, Ohio, 1929) includes chapters on the peoples and the history of Finland and the Finns in America. John Wargelin, *The Americanization of the Finns* (Hancock, Mich., 1924) also has chapters on the historical background of the Finnish race, the causes of emigration, and the immigration, distribution, occupations, and cultural life of the Finns in America.

foreigners and therefore ineligible to hold membership in the assembly. Furthermore, they were made to pay money to hold their land as freemen. Apparently they did not object to this as "the Swedes (as Penn calls the Finns), for themselves, deputed Lasse Cock [Penn's interpreter in Indian affairs] to acquaint him [Penn], on one occasion, that they would 'love, serve, and obey him with all they had declaring it was the best day they ever saw.' "[3]

These early Finnish colonists soon acquired a liking for the new country and the ample farming land that it afforded. To some extent the forest and wooded sections along the Delaware River were cleared by the Finns, due to their unusual ability to do this type of work. In Finland and Sweden it had long been a common practice to burn trees and stumps to fertilize the ground, but too much useful timber was destroyed and drastic measures were taken to stop the practice. Those who were found guilty were sent to America where they "might-be put to some profitable use."

The next migration of the Finns came a long time after they had settled along the Delaware. The Russian-American Company engaged in the fur trade along the Pacific Coast from San Francisco to Alaska, which belonged to Russia until 1867, felt a need for a source of food supply. At San Francisco they were unable to make a favorable profit by exchanging furs for provisions, so it was decided to establish a colony where they might raise their own food supplies. A palisaded fort was built on Badoga Bay in 1813. Finnish artisans were imported to take charge of the work which the Russians could not or would not do. In 1820 Ross, a larger post, was built about twenty miles up the coast. The purpose of this settlement was to furnish still more provisions for the northern post at Sitka, Alaska.[4]

Between 1830 and 1850 another group of Finns were reported to be headed for this continent, bound for Alaska. As no record

[3] E. A. Louhi, *The Delaware Finns*, 229 (New York, 1925). Louhi's book is the most extensive account of the Finns on the Delaware.

[4] Katharine Coman, *Economic Beginnings of the Far West*, 1:201 (New York, 1925); H. H. Bancroft, *The Works of Hubert Howe Bancroft*, vol. 33, "History of Alaska, 1730–1885," 481–490 (San Francisco, 1886).

of their arrival has been found, they may have gone to the Ross colony. There were Finns in Alaska at various times after the establishment of the Russian-American Company. They were mostly seamen or whalers. Uno Cygnaeus, a Finnish pastor at Sitka from 1839 to 1846, may have encouraged immigration, but one account claims that only forty-one foreigners arrived between 1804 and 1849. At the present time there are over 1,500 Finns in Alaska, the majority coming after 1905.[5]

One of the chief reasons for Finnish migration to America during the last hundred years was the bitter struggle for a living.[6] The uncertainties of nature, combined with the domination of Russia from 1899 to 1917, caused the Finns to go where everyone had a chance for freedom and a more hopeful future. As most of the good farm land in Finland was in use there was very little, if any, left of value for expansion purposes. After the American Civil War a gradual flow of Finnish immigrants began. The immediate cause seems to have been crop failures which in Finland might often mean but one thing—starvation—because in Finland nine-tenths of the people depend on agriculture for food and income.

Most of the Finns migrating to the United States settled in places where they could find immediate employment or where the climate, soil, and physical features were similar to Finland. Most of their settlement in the nineteenth century depended more on the former, than the latter, because of their poor financial condition. The chief settlements were in the Northwest, Massachusetts, and Ohio.

[5] U. S. Department of Agriculture, Office of Experiment Stations, *Annual Report*, 1902, p. 293.

[6] W. F. McClure, "The Finns as American Citizens," *Chautauquan*, 49: 247–254 (January 1908); Allan McLaughlin, "The Bright Side of Russian Immigration," *Popular Science Monthly*, 64:67–68 (November 1903); Clemens Niemi, "The Finns in America," *Scandinavia*, 1 (5):18–21 (May 1924); Antero Riippa, "Finns in America," *Interpreter* (New York) 3 (9):10–12 (September 1924); Eugene Van Cleef, "The Finn in America," *Geographical Review*, 6:185–214 (September 1918), *Finland, the Republic Farthest North*, 190–204 (Columbus, 1929), and "Finns in the United States and Canada," *Baltic Countries*, 2:35–37 (May 1936); "Finland," *Outlook*, 65:895–896 (Aug. 18, 1900); "Finns in the United States," *Literary Digest*, 61 (8):34 (May 24, 1919).

The United States Census for 1930 gives the number of Finns as 320,536.[7] This total includes the foreign-born and natives of foreign or mixed parentage but does not include those whose parents are natives of this country. A true estimate of the Finnish stock would be considerably larger. The ten States having the greatest number of Finns according to the 1930 Census are: Michigan (74,229), Minnesota (60,610), New York (27,247), Massachusetts (26,889), Washington (22,048), California (16,426), Wisconsin (14,596), Ohio (12,809), Oregon (12,026), and Illinois (9,623). The three counties with the most Finns are: St. Louis County, Minnesota, with 32,585, Houghton County, Michigan, with 17,970, and Worcester County, Massachusetts, with 13,175. Of these three, Houghton County has the greatest percentage, 33 percent of the total population being Finnish, but again this is not the true number as it does not include those of Finnish blood whose parents were born in the United States.

In 1920, 52.3 percent of the Finnish immigrant population was living in rural districts; the number dropped to around 48 percent in 1930. This change was probably due to the relative drop which occurred in the rural population of the United States during the same decade, and to the fact that many of the older Finns, natives of Finland, had passed away. Minnesota ranks first in Finnish rural-farm population, Michigan second, and Wisconsin third. This may not show the true number of Finnish farmers as they have a tendency to work part time in the cities and spend their spare time on farms, though when counted they may be classified as urban.

Settlement in the Northwest was generally in Michigan and Minnesota. In the early 1850's about two hundred and fifty Finns settled at Calumet in Houghton County. They were miners, imported from the copper-mining districts of Sweden, to work in the newly opened copper mines. To all knowledge,

[7] The data used in this article are taken from the U. S. Census Office, Fifteenth Census, 1930, *Population*, vol. 3 (Washington, 1932). Wargelin, *Americanization of the Finns*, 56–68, analyzed the immigration and census data and concluded that there were 352,000 Finns in America in 1924.

this is the only instance of importation of Finns by an industrial company. Many of these miners, like other Finns, had a deep desire to own a farm. A number of them saved their money and after a few years bought a piece of ground or homesteaded, some working in the mines part time and on the farm the remainder of the time.

Drummond Island, a part of Chippewa County, Michigan, between the North Channel and Lake Huron, is an interesting example of a Finnish settlement. It was settled to farm in the early years of the twentieth century.[8] The credit for this settlement goes to Maggie Walz, a Finn, who came to Hancock in Houghton County in the early seventies. Her early life was a difficult struggle but she eventually became the founder and editor of a Finnish ladies' journal and a recognized leader among her people. She noted the temptations that befell some of the Finnish miners and desired to help them obtain and own a farm, thus getting them away from some of the bad habits they had acquired. She went to the United States land office and secured permission to colonize Drummond Island. It was then opened to settlement and three hundred Finns applied for homesteads. The first houses built were rude shacks and clearing the land was a difficult process. The enterprise, however, was successful, and the Island today has three towns, Drummond, Maxton, and John Woods, and a population of around one thousand. The soil was found to be especially adapted to sugar beets and their cultivation was encouraged. It is also noteworthy that much pride was taken in raising fine cattle and thoroughbred horses.

In 1890 a number of Finnish woodcutters living near Torch Lake in Houghton County heard of a lake rich in fish somewhere up the Sturgeon River.[9] They found land to their liking and in this way Askel and the surrounding area was settled. On inquiry, they found that the land was open for homesteading and five families filed their claims. Like all settlers in a new country,

[8] G. L. Price, "The Angel of the Roundheads," *World's Work*, 26:349–352 (July 1913).

[9] "Pioneer Finnish Settlement in Michigan," *Michigan History Magazine*, 14:381–397 (July 1930).

they encountered many difficulties, but today the community is an up-to-date rural area and all but one of the original settlers still reside there. It was much in this way that Houghton County became a Finnish center and at the present time probably half the population is of Finnish descent. Farming is still one of their main interests, and the agricultural future of northern Michigan largely depends upon them. A step towards this development was the establishing of the Otter Lake Agricultural School.[10]

Of all the States, Minnesota has the largest Finnish rural-farm population. In 1873, a Swedish agent sent two hundred and thirty Finns to the territory being settled by the Northern Pacific Railroad. Later in the same year, the London office of the railroad announced that the same agent had another group of two hundred and forty-two adults and a large number of children ready to embark for Minnesota.[11] The number of Finns migrating in this manner was very small because they had insufficient funds and were unable to pay passage or buy land from the railroad land companies which were so active among the immigrants in the latter half of the nineteenth century. The main influx of Finnish settlers to Minnesota began in 1890, most of them settling in the "Arrowhead Country," and especially St. Louis County. At first the number was negligible, but by 1895 there were 7,652 Finns in Minnesota. The "Arrowhead Country" was open to homesteading and the Finns took advantage of this opportunity to acquire a parcel of land. The climate seems to have been a big factor in selecting a place to live, this particular country being somewhat similar to Finland, with countless lakes and rocky, swamp and peat lands.

Typical of the Finnish settlements in the "Arrowhead Country" of Minnesota is "The Finland Community," including the village of Finland and vicinity in Lake County.[12] Cramer

[10] L. A. Chase, *Rural Michigan*, 165–169, 172–173, 179–180 (New York, 1922).

[11] J. B. Hedges, "The Colonization Work of the Northern Pacific Railroad," *Mississippi Valley Historical Review*, 13:323 (December 1926).

[12] D. H. Davis, "The Finland Community, Minnesota," *Geographical Review*, 25:382–394 (July 1935).

and Isabella, two other small Finnish villages within a radius of some ten miles or more depend on Finland for trading purposes, and the children of Cramer attend its schools. The population of the community varies somewhat, as sometimes the younger members go to Duluth or Two Harbors to seek employment and return if none can be found. "The Finland Community" has an area of 24,320 acres owned by 179 individuals and corporations. Of the cleared land under cultivation, 326 acres were in hay and 165 acres in cultivated crops in 1934, the most important field crops being oats, potatoes, and barley, although some raise berries, small fruits, especially strawberries, and other farm products for their own use. They also have a cash product in cream, which they transport to Two Harbors and Duluth. The animal industry is small, there being but few hogs, sheep, and poultry, and each farmer usually has only one horse or team.

Another typical community, in ways somewhat different, is Embarrass, in St. Louis County.[13] The first settler was a Finn, Alec Palo, who came from the iron mines in the vicinity of the town of Virginia, and homesteaded in the early nineties. He talked to other Finnish miners where he had worked, and they became interested and took up homesteads in the same locality. The village grew gradually and without a definite plan. The houses faced different directions, none being in a straight row. The Finns of this community are said to produce more rye per acre than any other similar locality in Minnesota. Other than rye, they raise only such additional agricultural products as they need for their own use. There are approximately three hundred and fifty families in the vicinity.

The customs peculiar to Finnish farmers are interesting and may well be discussed in connection with this consideration of the region in which they are concentrated. The farm buildings are numerous and the way in which they are constructed seems to be more or less customary. They generally consist of a house, cow barn, horse barn, root cellar, several hay barns scattered

[13] Konrad Bercovici, *On New Shores*, 101–118 (New York, 1925).

over the fields, tool house, woodshed, bathhouse, and other individual structures. The construction of many of the houses is odd because the entrance to the upper floor is from the outside. The hay barn is also an oddity for the reason that the sides slope inward toward the ground and may be constructed of logs spaced several inches apart, and the floor raised a couple of feet from the foundation. Built in this manner, a constant circulation of air keeps the hay dry.

Perhaps the most interesting as well as unique building in a Finnish farm community is the *sauna* or steam bathhouse. It is one of the first buildings erected on the farm and is usually ten by ten feet.

> About twice a week a pile of stones is heated in the bath-house, after which the entire family, father, mother, and children, wrapped only in white sheets and each carrying a pail of water, goes into the little house to bathe. Inside benches are built around the walls, and higher up there are large shelves. When the place has been made air-tight the water is thrown upon the heated stones, and the members stretch out nude on the benches and shelves ready for their steam baths. As they become accustomed to the heat more water is thrown upon the stones, producing a more intense heat.[14]

Even small babies become accustomed to this practice a few weeks after birth.

Legends, proverbs, folk poetry, and music from the homeland also linger in the Finnish communities.[15] A feeling for these things has continued in Minnesota, possibly because the physical environment is similar to Finland. Most important of all is the *Kalevala*, the great national epic which records the struggle for existence which has always confronted these people. The old ballads, love songs, and laments, once sung to the accompaniment of the *kantele*, a triangular harp, are still in everyday use.

> Finnish dance tunes are gay and Finnish humor is charming. The latter appears in many of the songs, and there are so many hearty rollicking tunes that one wonders if the usual American idea of "gloomy music of the northern countries" is not a misconception. Even the melancholy airs, of which there are plenty and

[14] *Ibid.*, 113.

[15] Marjorie Edgar, "Finnish Folk Songs in Minnesota," *Minnesota History*, 16:319–321 (September 1935), and "Finnish Charms and Folk Songs in Minnesota," *ibid.*, 17:406–410 (December 1936).

among the most lovely, have no feeling of self-pity; they are rather detached in spirit and have a mysticism of a purely Finnish type, as unconscious of its quality as a stream or a spruce would be. . . . It is not only that the airs are different from other folk tunes, but that in both tunes and words one feels the imagination, the poetry of a reserved and shy race, using song as its natural expression.[16]

Charms and incantations used by professional *loitija* or wise women in Finland are now told to the children for amusement.[17] They give rules for making the cows come home from the pastures, curing or preventing illnesses, relieving bruises, scratches, and scalds, stopping hiccoughs, preventing frozen fingers, and ridding homes of unfriendly elves. The practice of telling these tales is gradually dying out among the later generation. For some unknown reason, no costumes have survived, even among the old women.

The Finns who settled in the East are concentrated in Massachusetts.[18] The first arrived in Boston around 1860, but they were not numerous at that time, most of them being sailors who had become tired of the sea and wanted to settle down and take up farming. About 1872 Finns came into the small community of Harwick in Barnstable County, but they were unable to find immediate employment and were reported to have gone on to Michigan and Minnesota. After 1890 the Finns started to settle throughout Worcester County and wherever employment could be obtained.

Many of these first settlers went to Cape Ann in Essex County, Massachusetts.[19] One group located at Lanesville where the men obtained work in the quarries. This colony was largest from 1900 to 1905. During that period many of the men ceased working in the quarries because they were able to earn a better living cutting paving blocks by hand from large boulders scattered over the terrain throughout the vicinity of Lanesville. In 1907 the demand for stone diminished as other material for

[16] Edgar, "Finnish Charms and Folk Songs in Minnesota," 320-321.

[17] Marjorie Edgar, "Finnish Charms from Minnesota," *Journal of American Folk-Lore*, 47:381-383 (October-December 1934).

[18] Eugene Van Cleef, "The Old World in the New," *Scientific Monthly*, 16:498-504 (May 1923).

[19] H. C. Babson, *The Finns in Lanesville, Massachusetts* (Los Angeles, 1919).

paving was found to be more practical, and consequently they were forced to seek other employment. Many went to Worcester County and others as far as Pittsfield in Berkshire County.

Of the Finns who settled in New England, a number took over abandoned or run-down farms. Most of these farms had been uncultivated for five or ten years and had large boulders, stumps, and a heavy growth of second vegetation. The Finnish farmers worked slowly and eventually put these farms on a paying basis. Today, especially around Gardner and Fitchburg, they are engaged in raising vegetables and small fruits and have made a record in the production of strawberries.

Another small but important settlement of Finns in Massachusetts is in the cranberry country of the Cape Cod region.[20] The first Finn was brought in by Franklin Crocker in 1890 to work on a cranberry bog near the village of Hyannis. Eventually the Crocker property was sold to Makepeace, "the cranberry king," who at once recognized the value of the Finns in raising cranberries. Whenever he could, he persuaded Finns to work for him. It can readily be seen why the Finn was helpful in building up this industry. The soil in eastern Massachusetts was very poor and it was not until the nineteenth century that it was found that peat land could be successfully used for raising cranberries on a commerical scale. The Finns who had worked similar land in Finland knew how to use this type of land to the best advantage, and their knowledge of drainage was a great aid in developing the peat land for this agricultural product.

Ohio was another State in which the Finns settled, concentrating in the northeastern section.[21] They first came as early as 1880, gained employment, and then, like other immigrants, sent for relatives and friends. The majority settled around Ash-

[20] Eugene Van Cleef, "The Finns on Cape Cod," *New England Quarterly*, 6:597–601 (September 1933); C. Y. Mason, "The Cranberry Industry in Massachusetts," *Economic Geography*, 2:59–69 (January 1926).

[21] Eugene Van Cleef, "The Finns in Ohio," *Ohio Archaeological and Historical Quarterly*, 43:452–460 (October 1934), and "The Finns of Ohio," Association of American Geographers, *Annals*, 21:139–140 (June 1931); McClure, "The Finns as American Citizens," 248–249.

tabula and in smaller communities of Ashtabula County along the shores of Lake Erie. The ore docks and lake vessels afforded employment as employers found them apt workers and the possessors of great physical stamina. Many of the Finnish immigrants have worked around Ashtabula as a stepping stone to the agricultural northwest, staying just long enough to save money to buy a farm. However, many have remained in the neighborhood, possibly farming what land they could obtain when not otherwise employed.

Other localities in which Finns are found to some extent are Alemeda County, California, Lake County, Illinois, Westchester County, New York, Clatsop County, Oregon, Grays Harbor County, Washington, and Iron County, Wisconsin. The number of Finns engaged in agriculture in these places is negligible, although in Wisconsin a great number have worked in mines and elsewhere and later bought farms or homesteaded. There are a large number of Finns in the metropolitan areas of New York, Chicago, and Cleveland. Those in New York City are located principally in Brooklyn.

The greatest contribution of the Finnish farmers to American democracy is their introduction of successful consumers' cooperatives.[22] The Finnish cooperative movement, as introduced in America, had its beginning in Finland in 1899. It was found that a buying and selling plan was not the only need of the people but a regeneration of an impoverished group. Dr. Hannes Gebhard, a professor at the University of Helsingfors was the leader in this movement. The Finnish people, as soon as they realized what cooperation could do for them in their life's transactions, took steps toward developing cooperatives.

[22] B. B. Fowler, *Consumer Cooperation in America*, 261–274 (New York, 1936); Ernest Lundeen, "The History, Growth, and Benefits of Cooperatives, with Particular Reference to Minnesota," *Congressional Record*, 80 (6):6739–6762 (May 6, 1936); V. S. Alanne, "Trends of Today in the Finnish Cooperatives," *Cooperation*, 18:113–115 (June 1932); M. Tenhunen, "Broadening of Cooperation among the Finns," *ibid.*, 14:167–168. "A consumer cooperative is a collective, profit-sharing organization which buys and sells its products. A producer cooperative is a profit-sharing organization which manufactures and sells its commodities." —Manya Gordon, "The Cooperative Movement," *Saturday Review of Literature*, 14 (8):3 (June 20, 1936).

The result is that they have become "the most remarkable cooperators in the world. When it comes to overcoming difficulties, and when it comes to the matter of feeling cooperation in every fiber of their producing and consuming organisms, . . . the Finns may easily stand at the very top among the agricultural nations of the world." Most cooperative developments by other countries have been in industry, but the success of Finnish consumer cooperatives has been credited to the farmer.[23]

With a background of cooperative experience, it was only natural that the Finns in America should organize cooperative stores and similar enterprises. Many of these were in operation before the World War. Perhaps the most interesting example is the Cloquet Cooperative Society at Cloquet, Minnesota.[24] In 1910, one hundred and twenty-one Finnish mill workers raised a capital of $1,900 and started a store. A forest fire in 1918 wiped out the entire town of Cloquet and the society suffered a complete loss. With the remaining capital of $491, the Finnish Workmen's Society and the Cloquet Cooperative Society, working together, built a new structure. The figures given by the Society show the success they have had. The stores backed by this Society have five warehouses, one situated near the railroad tracks to deal directly with the farmers at a great saving.

The largest consumers' cooperative enterprise is the Central Cooperative Wholesale (C. C. W.) house, located at Superior, Wisconsin.[25] It was founded in 1917 by the representatives of fifteen small stores. Confronted with discrimination against their stores in receiving supplies, a cooperative wholesale house was needed to keep their business going. The sum of $15.50 was collected by the pass-the-hat method, and with this small

[23] Freeman Tilden, "The World's Champion Cooperators," *Country Gentleman*, 89(30):15 (July 26, 1924). Cf. Van Cleef, *Finland*, 94–110.

[24] "Finnish Cooperators in America," *Interpreter*, 7(3):6–11 (March 1928); Ahti Tuohino, "Cloquet Cooperative Society," Cooperative League of the United States of America, *Third Yearbook*, 100–105 (Minneapolis, 1936).

[25] Lundeen, "The History, Growth, and Benefits of Cooperatives," 6744; H. V. Nurmi, "The Story of the Central Cooperative Wholesale," Cooperative League of the United States of America, *Third Yearbook*, 66–71 (Minneapolis, 1936); Central Cooperative Wholesale *Yearbook* for 1936.

capital the C. C. W. was started. At the present time there are more than seventy successful stores connected as members, and it had over a two million dollar business in 1935. This is somewhat smaller than in previous years, but it is a 22.25 percent increase over 1934. In 1930 the business amounted to five and one-half million dollars.

Among the organizations served by the C. C. W. are the Farmers Cooperative Trading Company with its main store at Hancock, Michigan, the C-A-P Cooperative Oil Association at Kettle River, Minnesota, the Lawler Farmers' Cooperative Association at Lawler, Minnesota, the Wawina Cooperative Society at Wawina and Jacobson, Minnesota, the Cooperative Trading Company at Waukegan, Illinois, and numerous others throughout Minnesota, Wisconsin, Michigan, and the nearby States.[26]

About 75 percent of the members of these stores are farmers, and three-fourths of the income above expenses is returned to them. Much of the success of this vast cooperative enterprise is due to good management. The C. C. W. maintains a training school for employees and instructs them to an efficient degree in the art of management.

Massachusetts also has Finnish cooperative societies. The United Cooperative Society at Maynard is well known.[27] It was started with a small capital of $1,600 and did a $400,000 business in 1935. Groceries are the main item and its stores serve the entire market-gardening and dairy region around Maynard. The Society has spread to Fitchburg where it has four stores in operation.

In a number of the large cities Finnish cooperative enterprises of various kinds and sizes can be found. The Finnish Trading Association of Brooklyn, New York, operates a bakery, a restaurant, a grocery, and a meat market, a pool room, fifteen apartment houses, and a garage.[28] People may wonder how the

[26] *Ibid.*, 84–99, 105–115, 214–218.

[27] F. P. Stockbridge, "Cooperation Can't Be Done with Mirrors," *Saturday Evening Post*, 209 (16):28, 98, 100, 101, 102, 104 (Oct. 17, 1936).

[28] "United Cooperative Society of Maynard," Cooperative League of the United States of America, *Third Yearbook*, 131; "Seven Strides Onward Toward

Finnish farmers are in any way connected with this type of enterprise. They developed the first successful consumers' cooperatives in the United States, both rural and urban. Not only have they put the cooperative idea to work in farm communities, but those who have turned to the cities for a living have put it to work there. The meaning of democracy to the Finn is cooperation with his neighbor.

HORACE H. RUSSELL

Washington, D. C.

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the Cooperative Commonwealth," *Cooperation*, 11:61–63 (April 1925), summarized in "Progress of Finnish Cooperators of Brooklyn," *Monthly Labor Review*, 20:1379–1380 (June 1925); "What 1500 People Have Accomplished by Getting Together," *Playground*, 15:48–49 (April 1921).

IN PRAISE OF HUSBANDRY

The praise of husbandry is very old. Hesiod, writing his *Works and Days* in Homeric times, included with his calendar of farm tasks an expression of his preference for agriculture over commerce, and even over the honored life of the soldier. Xenophon, in *The Economist*, represented Socrates as bestowing lavish praise upon both husbandry and husbandmen. The great philosopher declared that agriculture was the only essential occupation of man and the mother of all the arts; that agriculture was a noble profession equal in dignity to that of war; and that its practitioners were superior to the inhabitants of cities.[1] Cato's *De Agricultura*, considered the oldest remaining prose work in Latin, was a manual on agriculture whose short preface disparaged commercial and financial vocations, praised rural endeavors, invoked an ancestral blessing upon husbandry, and declared that farmers were better citizens than urban residents.

In Augustan and Imperial Rome, the praise of agriculture assumed a definitely conventionalized form. Cicero's *De Senectute*, written in 44 B.C., expressed warm satisfaction in both the pleasures and profits of farming, celebrated its benefits to man, and with many details recited that all the great early Romans had been tillers of the soil.[2] Less than ten years later the octogenarian Varro wrote *Rerum Rusticarum*, a practical handbook on farming ostensibly composed for his wife, Fundania. Varro declared that agriculture was both the earliest and the best of man's employments, that it produced the best soldiers and citizens, and that the early Romans had considered farmers definitely superior to city folk.[3] Virgil's second *Georgic* concluded with the famous *O fortunatos nimium* passage, which

[1] H. G. Dakyns, tr., *The Works of Xenophon*, 3(1):213–224 (London, 1897).

[2] E. S. Shuckburgh, tr., *Two Essays on Old Age & Friendship*, 75–81 (London, 1927).

[3] Lloyd Storr-Best, *Varro on Farming*, 121–122, 239, 241 (London, 1912).

disclosed that the humble countryman was uniquely blessed, being free from the vices and harrassments of court and city, and living in proud independence amid sweet conjugalities and the beauties of nature. Removed from temptation and dowered by his fields, the farmer was sheltered from the ills of the world, and therefore called upon neither to envy opulence nor to pity misery. Columella's *De Re Rustica* opened with a long preface to Publius Silvinus which recorded what was probably the most detailed and superlative praise of agriculture yet written.[4] Columella presented a nostalgic picture of an early, Golden Age Rome composed of small, vigorous, virtuous, and independent landholders. He contrasted this with a portrayal of the sickly, urban vices of his own day, and pointed a moral which made the city the symbol of the sin and weakness he deplored, while the country remained both the symbol and the mother of all the departed virtues he yearned for. The only occupation worthy of a freeman and a gentleman was agriculture; for the military profession was one of "blood and slaughter," banking was entirely "odious," commerce was both uncertain and undignified, and law consisted of "barking and snarling."[5] The founding fathers, and the great Romans since, were revealed as simple farmers. Further, of all man's employments, agriculture alone was essential; and Columella ascribed the ills of the day to the prevalent lack of love and esteem for it. Finally, the elder Pliny, in those sections of his encyclopedic *Natural History* which dealt with agriculture, catalogued effectively most of the details of the praise which the Augustan writers had bestowed upon agriculture and the country life.[6]

Obviously such sentiments were at least in part prompted by motives similar to those which inspired Tacitus' description of the Germans. That this attitude had a wide vogue is evident from the fact that the suave and elegant Horace indited his well-

[4] L. Junius Columella, *Of Husbandry; In Twelve Books: and His Book Concerning Trees, translated into English, with several illustrations from Pliny, Cato, Varro, Palladius, and other antient [sic] and modern authors*, 1–14 (London, 1745).

[5] *Ibid.*, 3–4

[6] Philemon Holland, tr., *The Historie of the World*, vol. 1, book 18, ch. 3, 5, 6 (London, 1601).

known second epode to the joys of a simple, country life. In the Dryden translation, it begins:

> How happy in his low degree,
> How rich, in humble poverty, is he,
> Who leads a quiet country life;
> Discharg'd of business, void of strife,
> And from the griping scrivener free!
> Thus, ere the seeds of vice were sown,
> Liv'd men in better ages born,
> Who plow'd, with oxen of their own,
> Their small paternal field of corn.

Thus the Augustans established a conventional praise of agriculture and the country life. In forms which soon became stereotypes, agriculture was called the mother of all the arts, the most noble, and the only employment essential to man's needs and happiness. The city became the abode of vice, corruption, weakness, and deceit, while the country nourished honor, manliness, happiness, and the immemorial virtues. This conception was given ancestral prestige by the founding fathers, who appeared in a nostalgic, Golden Age mist, and from behind heroic plow handles, pronounced their blessing.

This tradition was an essential part of the Classic agricultural literature to which modern Europe fell heir during the Renaissance. When, in the sixteenth century, a modern literature of agriculture developed, it borrowed its philosophy from the ancients. In dedications, prefaces, and special chapters "In Praise of Husbandry," the modern authors imitated the Golden Age mood of their great Classic exemplars. Along with quotations, citations, and paraphrases of Classic sources, they arranged incidents and dicta culled from Biblical history and teachings. Thus both pagan and Christian wisdom became authority for the all-importance of agriculture and the unique blessedness of the country life.

Agostino Gallo, whose *Le Vinti Giornati dell' Agricoltura* was first published in 1550, was probably the most widely known and influential of the many Italian writers on agriculture who flourished in the sixteenth century. In 1571, Gallo's book was translated by François de Belle-Forest and published in Paris as

Secrets de la vraye agriculture. In the dedicatory epistle which Belle-Forest wrote for this edition, he followed closely the example of Xenophon and the Roman writers on agriculture by citing that the Persian king had not only loved his gardens, but actually worked them with his own hands; that Homer's hero Ulysses was plowing when summoned to Troy, as was also Cincinnatus when called to be dictator; and that all the great Romans loved agriculture. Agriculture and the country life were, further, the haven of innocence and peculiarly blessed by God. Gallo, originally, had devoted a prologue, as well as two out of the twenty "days" into which the book was divided, to the praise of husbandry. In the prologue he argued that agriculture was a fundamental of life, was noble, pleasant, and agreeable, the foundation of all nobility, and the unique consolation of Adam after his expulsion from Eden.[7] The eighteenth day, entitled "Of the Pleasures of the Country, and That it is Better to Reside there than in Cities," enumerated the pleasures and physical blessings of the country, and ended by associating modesty, honor, innocence, justice, and decency with the rural life, their opposites with urban existence. The twentieth day listed the conventional Classic praise of husbandry and the simple life, and included several quotations of poetry, both ancient and modern, expressing the *O fortunatos nimium* theme.

The Estienne-Liébault *L'Agriculture et maison rustique*, which in varying forms and editions was to be for nearly two hundred years the best-known French book on agriculture, appeared at about the same time that Belle-Forest was translating Gallo. The *Épistre dédicatoire* of the 1572 edition told that agriculture was the most necessary and the most profitable of human occupations, that it was the employment of the first man on earth; love of the soil was an attribute placed in man's heart by God, and the life of the cultivator best enabled men to appreciate the greatness and beneficence of God's works. Wise cul-

[7] The "Prologue de Messer Augustin Gallo . . ." in *Secrets de la vraye agriculture* (Paris, 1571). The pages of much of the prefatory material used for this study are not numbered, and it is therefore not always possible to refer to specific pages.

tivation of the soil produced everything necessary to human life. Cyrus and Diocletian were among the notable lovers of gardening and agriculture, and

> The senators, dictators, and consuls of Rome . . . were never so happy as when they rusticated: never so content with themselves as when, freed from public concerns, they could at leisure devote themselves to the cultivation of the soil. . . .

Editions varied. The 1602 edition was prefaced by an *Avertissement au lecteur* by F. Anthoine Langvier wherein that learned doctor ransacked further ancient pagan and Christian letters for testimony to the utility and blessedness of agriculture. His conclusions were the familiar ones that "of all those arts which serve the needs and health of man, agriculture is the principal one," and that agriculture had always been known as "the life of liberty and innocence."

The *Théâtre d'agriculture* of Olivier de Serres, first published in 1600, ran through twenty editions in three quarters of a century, and for that period at least, equalled or exceeded the *Maison rustique* in popularity. It was Serres who, at the command of Henry IV, planted the first mulberries in the Tuileries and in 1599 wrote a treatise on the culture of the silk worm.[8] The dedication of the *Théâtre d'agriculture*, which was addressed to the King, stressed the importance of agriculture and the opinion that both the King and the Nation depended upon it, from which it followed that agriculture merited the King's prime consideration. In the *Préface*, Serres again emphasized the vast importance of agriculture. Not only was agriculture the suckling mother of mankind, but

> it is agriculture on which all classes of men set their aim. For to what purpose do men labor so passionately at arms, at letters, at finance, at trade, but to have money? And for what do they want this money but, having got it, to buy land? And to what end do they buy land, but to live off the fruits of it? And how else may these fruits be got, than by cultivation? Thus it appears that, whatever road man takes in this world, he comes finally to agriculture, the most universal occupation of men, the most holy and natural, and the only one to which our first fathers were commanded by the mouth of God.

[8] See the "Eloge d'Olivier de Serres" in *Théâtre d'agriculture*, 1:xxxv–xxxviii (Paris, 1804–05).

Besides the praise of agriculture in the *Préface* and the dedication, Serres included a *Conclusion* which amounted almost to a compendium of the Classic stereotypes praising husbandry and the simple country life.[9] It was related that King Dejotarus, the Emperor Augustus, and Maecenas felt honored that books on husbandry were dedicated to them. The Romans were careful to preserve books on agriculture when they sacked Carthage. There was the story of how the ancient King Aglaus found that the world's happiest man was a simple Arcadian farmer, and mention of the famous Abdolonymus, who left his little farm, when called to the throne, only with profound regret. Another story common to agricultural literature which Serres recounted was the legend of Furius Crisinus, the poor Roman farmer who produced such prodigious crops from his small field that he was accused of witchcraft. He defended himself by displaying his plow and hoes and oxen, along with a brawny daughter, and saying that these comprised his sorcery; whereat of course he was released and praised, and his accusers flayed for laziness. Cyrus, Plato, Cato, Seneca, Cicero, and Diocletian were cited among the ancient great who especially loved agriculture and the rural life. The Church fathers, especially St. Augustine, were found to have advised that country life and labors made the surest path to heaven. Petrarch was named as a lover of solitude. The Sieur de Pibrac, author of *Les Plaisirs de la vie rustique* (Paris, 1577), was quoted on the joys of the country. A translation of the beginning of Virgil's *O fortunatos nimium* passage was given, together with some unidentified French verses celebrating the happiness of rural retirement.

In Germany, Conrad Heresbach's *Rei Rusticae Libri Quatuor* was published in 1570. This was translated into English by Barnabe Googe and published in London in 1577 as *Foure Bookes of Husbandry, Collected by M. Conradus Heresbachius, Counsellor to the hygh and mightie Prince, the Duke of Cleve; Conteyning the whole arte and trade of husbandry, with the antiquitie, and commendation thereof*. . . . This book began with fourteen pages (seven double pages) devoted largely to the con-

[9] Pages 998–1004 in the 1600 edition.

ventional stereotypes in praise of agriculture. Over a score of famous Greeks and Romans were cited for their love of husbandry.[10] Further, "the holy Scriptures declare husbandry to be the auncientest of al trades," and "the mightie Lord him selfe did first ordayne it"; even "our Saviour CHRISTE him selfe gloriethe to be the sonne of a husbandman. . . ."[11] Virtuous men had always recognized the superior merits of agriculture, for

> the best and godliest men have alwayes imbraced it, and the olde fathers have ever counted it the very Cosin Germane to wysedom. Cicero calleth it the mistresse of iustice, diligens, and thriftinesse; some others call it the Mother and Nurs of al other artes. For whereas we may live without the other, without this we are not able to sustayne our life. . . .[12]

The *Maison rustique* of Estienne and Liébault was soon translated into German by Melchior Sebizius.[13] His *Vorrede*, addressed to the Elector Ludwig of Bavaria and dated 1579, was essentially an adaptation of the praise of husbandry of the *Épistre dédicatoire* of the 1572 French edition. Sebizius recited with the usual details that the great men of classical antiquity had esteemed and worked at agriculture. Following this, he reviewed Biblical history, to find that all the *good* men therein were husbandmen. He emphasized both the priority and the primacy of agriculture as a human employment, and demonstrated that agriculture and wisdom were intimately associated. He cited Virgil's *O fortunatos nimium* passage; and the *Vorrede* was followed by two poems in German praising the country life, one being a translation of Horace's second epode.

Although agricultural literature flourished greatly in the latter third of the sixteenth century, it tended generally to decline through the seventeenth. After 1600, comparatively little was written that was new, although new editions and reprints continued. The exception was England, where the output of new books on agriculture suffered few interruptions.

William Lawson, in a book on horticulture written in the sec-

[10] Pages 2–5.
[11] Page 6.
[12] *Ibid.*
[13] *Fuenffzehen Buecher vom Feldbaw. . . .* (Strassburg, 1587).

ond decade of the seventeenth century, kept alive the traditional praises:

> I am not determined (neither can I worthily) to set forth the praises of this Art [horticulture]: how some, and not a few, even of the best, have accounted it a chiefe part of earthly happinesse, to have faire and pleasant Orchards, as in Hesperia and Thessaly, how all with one consent agree, that it is a chiefe part of Husbandry . . . and Husbandry maintaines the world; how ancient, how profitable, how pleasant it is, how many secrets of nature it doth containe, how loved, how much practised in best places, and of the best: This hath been done by many.[14]

Gabriel Plattes, writing in the fourth decade, introduced a somewhat new note—much imitated thereafter and indicative of new concepts—by the argument that good agriculture, and above all improvements in agriculture, were a national benefaction.[15]

Sir Richard Weston, writing a few years later, also stressed the national benefit which would proceed from a more efficient agriculture, stating that the Romans had punished poor cultivators as public enemies, and intimating that he might favor such laws for his own times.[16] Weston also expressed many of the stereotype ideas of the prime importance of agriculture, and in the preface addressed to his sons included an unacknowledged verbatim translation of the passage in Serres' *Théâtre d'agriculture* wherein a chain of reasoning instructed that agriculture and the fruits of agriculture were the ultimate objects of all occupations.[17]

Walter Blith, who first published *The English Improver Improved* in 1649, claimed that his impulse to write upon agriculture proceeded from his solicitude for the public weal.[18]

[14] "The Preface to the Well Minded" in *A New Orchard and Garden* . . . (London, 1623). The book was first published in 1618.

[15] See "The Epistle Dedicatory" in *A Discovery of Infinite Treasure* . . . (London, 1639).

[16] *A Treatise Concerning the Husbandry and Natural History of England*, 109 (ed. 2, London, 1742). This book was first and is still better known as the *Discours of Husbandrie in Brabant and Flanders*. . . .

[17] Serres, *Théâtre d'agriculture*, 6. Cf. the introduction of *A Treatise Concerning the Husbandry and Natural History of England*, viii; and the passage beginning, "et de fait, c'est à l'agriculture où tous estats visent . . ." in the "Préface" of *Théâtre d'agriculture* (1600).

[18] The "Epistle Dedicatory" of the third impression, 1653.

Blith also followed the older traditions in his first chapter, which treated "Of the Excellency, Necessity, and Usefulness of Improvement, and Good Husbandry."

> . . . every thing is the more excellent, the more ancient, and nearer it comes to God, the first being of all things, which as all things nearest the Center move more strongly, so all Excellency appears most evidently, the nearer (if I may speak with reverence) to that Majesty, the great Husbandman, God himself . . .
>
> So God was the Originall, and first Husbandman, the patern of all Husbandry, and first projector of that great design, to bring that old Mass and Chaos of confusion unto so vast an Improvement, as all the world admires and subsists from.[19]

After a brief review of Biblical history which proved again the divine ordination of agriculture, Blith proceeded to a comparison of the value of a husbandman to the State with that of a merchant:

> All other callings proceeding hence, the Earth being the very womb that beares all, and the mother that must nourish and maintain all. The Merchant is a gallant servant to the state, he fetches it from farre, and tis a gallant Inrichment to this Nation; but he purchaseth it from others . . . raiseth it not out of nothing, but parts with good Silver, or Gold, or some good commodity for it. . . .
>
> But this Merchant of Husbandry, he raiseth it out of the Earth, which otherwise would yield little, unless this ingenuity fetch it out, possibly never discovered to be there. And what parts he with? or what rates purchaseth he it at? Even only with the wages of the labouring man, whom he is bound both by the Law of God, Nature, and the Land, to maintain. . . . Oh! the Excellency, Antiquity, and Usefulness, of it.[20]

Samuel Hartlib's expressions of opinion concerning the nobility and economic importance of agriculture have been noted, although apparently without appreciation of the fact that they were merely echoes of the traditional attitude of agricultural literature.[21]

[19] *Ibid.*, 3.

[20] *Ibid.*, 4–5.

[21] S. J. Brandenburg, "The Place of Agriculture in British National Economy Prior to Adam Smith," in *Journal of Political Economy*, 39:283 (June 1931). Brandenburg examined the writings of the English Mercantilists and found that several of them on some occasion accorded agriculture an important place in the national economy. Hartlib's bold expression of the importance of agriculture, however, stood quite alone among those of the Mercantilists with whom he was associated in this article. The others were, on the whole, grudging in their concessions to agriculture. Brandenburg concluded: "The chief contention of this study is that, even in the two centuries when England was growing into a 'nation of shopkeepers,' she never neglected, or appreciably underestimated the importance of, the land and its culture."—p. 320.

John Worlidge's *Systema Agriculturae* (London, 1669), in its long preface, repeated with extraordinary completeness and impressive superlatives the old stereotypes describing the pleasures, the vast importance, and the nobility of agricultural enterprise. Worlidge declared that the very virtues of agriculture inspired "the vainer and Pedantick sort of persons, despising the worth or value of what they are ignorant of," to disdain agriculture, and "esteem the Country no other than a place for beasts, as Cities for Men; This makes us tread in the steps of more worthy Rustick Authors, and give a short Preface . . . to satisfie or confirm the Ingenious of the Excellency and inestimable value of this Art. . . ." Worlidge then told, with many citations and specific examples, how the great men of the past had loved agriculture, and dwelt on both the vast economic importance of agriculture and the moral and philosophic benefits of country life. Concerning the latter, he wrote:

> This Country life improves and exercises the most noble and excellent parts of our Intellects, and affords the best opportunities to the insatiable humane Spirit, to contemplate and Meditate on, and to penetrate into, and discover the obscure, and hitherto occult Mysteries and Secrets of Nature . . . yea this condition capacitates a Man to the study and practise of the most Secret and Mystical things Nature affords. . . .

Sir John Pettus, in *St. Foine Improved*, implied the economic primacy of agriculture by the manner of his reasoning while urging the improvement of land by sainfoin:

> . . . the more meat the more mouths both of Men and Beasts, and the more of them the more Merchandizes, the more Manufactures, and the more Money; and every way the more will be the Riches, Strength, Prosperity, and Glory of a Nation.[22]

Moses Cook, writing of horticulture, noted the predilection of great men for gardening, and told of the pleasure, innocence, and sovereign utility of planting and growing in general.[23]

John Houghton, counted a Mercantilist and by no means

[22] *St. Foine Improved*, 6 (London, 1671).

[23] The preface "To the Courteous Reader" in *The Manner of Raising, Ordering; and Improving Forest and Fruit-Trees* . . . (London, 1679).

concerned solely with agriculture, wrote that "what the Husbandman is concern'd for, is the *Materia prima* of all trade. . . ."[24]

One notable exception of this period must be registered. Sir William Temple, in his essay *Upon the Gardens of Epicurus: or, Of Gardening in the Year 1685*, employed the traditional praises of agriculture to describe gardening, but definitely withheld them from agriculture, which with fine disdain he lumped with the ignoble life of the cities.[25]

Leonard Meager, whose *Mystery of Husbandry* appeared in London in 1697, called God "the Almighty Husbandizer," and argued both the economic and moral superiority of agriculture over other occupations, in an *Introduction* copied from Walter Blith's first chapter.[26]

In *Acetaria* (1699), John Evelyn recited at great length the dignity and pleasure, especially of gardening, but also of agriculture.[27]

Edward Lisle wrote his *Observations in Husbandry* in the years around 1713, but they were not published until mid-century. Lisle echoed the usual praises of the country life, found all economic effort dependent upon the plow, and told how the noble Romans had esteemed agriculture.[28]

During the reign of George I, a rising tide of popularity carried the fad of agriculture, and the related fad of gardening, to an initial climax. During this period there were three writers on agriculture and gardening who were better known and more prolific than any of their contemporaries. They were Richard Bradley, John Lawrence, and Stephen Switzer. All of the old stereotypes in praise of husbandry may be found broadcast through their writings. A few examples may be specified. Stephen Switzer's *Nobleman, Gentleman, and Gardener's Recre-*

[24] *A Collection of Letters for the Improvement of Husbandry and Trade*, 1:2 (1681). The letter is dated Sept. 8, 1681.

[25] *The Works of Sir William Temple*, 3:205–206, 214 (London, 1814). The complete essay is on pages 202–245.

[26] Pages 1–3. Cf. *The English Improver Improved*, 3–5 (1653). See above, page 88.

[27] See the dedication; also pages 188, 191–192.

[28] "Author's Introduction," 1:xi–xviii (ed. 2, London, 1757).

ation (London, 1715) began with a seventy-one page "History of Gardening," which in effect amounted to a chronological compilation of the praises of gardening and of agriculture from the earliest times to the present. Little that had ever been written to exalt the country life and rural employments escaped him. Switzer was even bold enough to conclude this chapter with the observation that "those that have no Love nor Taste for this Subject, may certainly conclude themselves of base, ungenerous Thoughts. . . ."[29] John Lawrence, a clergyman, was the author of numerous treatises on gardening, as well as the *New System of Agriculture* (1726), and a long poem, *Paradice Regain'd* (1728). The latter illustrated the moral that gardening was the key to the recovery of terrestrial happiness. The "Preface to the Reader" which opened the *New System of Agriculture* contrasted the sins and temptations of the city with the innocence and purity of the country. Richard Bradley, whose extensive writings included expression of many of the old stereotypes in praise of husbandry, sought in one place to dignify the cultivator's occupation by stating that only the philosopher was worthy of it.[30]

England was the first country to embrace the agricultural fad and to feel the accelerated reform of agriculture which developed in the eighteenth century. The wide enthusiasm which arose then had a fairly continuous, though restricted, precedent, that went back at least as far as the period of the Civil Wars when projects for agricultural reform had been common. This thread of interest is manifest from the unabated production of books upon agricultural subjects.[31] Until the turn of the century, however, there seems to have been comparatively little new agricultural writing on the Continent. Around 1700, interest in agriculture and agricultural writings began slowly to revive

[29] Page 71.

[30] See the "Introductory Discourse" in *The Country Gentleman and Farmer's Monthly Director*, vii–xviii (ed. 3, London, 1727).

[31] Rothamsted Experimental Station, Harpenden, England, Library, *Catalogue of the Printed Books on Agriculture Published between 1471 and 1840, with notes on the authors by Mary S. Aslin* (Aberdeen, 1926?) is the most complete bibliography. See the chronological lists of books on agriculture.

in France, though only after 1750 did France display an interest in any degree comparable to that of England during the third decade. The rest of Europe followed behind France.

The *Maison rustique* of Estienne and Liébault was revived in 1700 by Louis Liger as the *Nouvelle maison rustique*; under Liger's editing, and after 1721 under that of H. Besnier, this book had ten editions by 1772. In the first chapter, called the "Utilité & Délices de l'Agriculture," the reader learned the old lesson that agriculture was the nurse of all humanity; that when agriculture prospered, there was abundance, and all the arts flourished; and that agriculture was the first and universal destiny of all men.[32] There was the usual contrast of rural innocence and urban vice and the usual account of the great men who had devoted themselves to the study and practice of agriculture.[33] In the later editions a preface written by Besnier was added which reiterated the customary stereotypes.

The *Curiosités de la nature et de l'art*, by the abbé Pierre le Lorrain Vallemont, first published in Paris in 1705, was translated into English and German, besides its numerous French editions. Vallemont's book was not devoted exclusively to agriculture; rather it was in part polite scientific vulgarization of the type then fashionable. A dominant portion of it, however, was concerned immediately with agriculture. This was the occasion for the repetition of the traditional praises of husbandry and the simple life. Vallemont stated the priority and implied the vast importance of agriculture; as became his ecclesiastical position, however, he was more interested in the moral benefits of the farmer's life, which he detailed at great length.[34] As *Werckwürdigkeiten der Natur und Kunst in Zeugung, Fortpflantzung und Vermehrung der Gewächse* (Bautzen, 1716), Vallemont's version of the time-honored praises of agriculture was disseminated among German readers.

The foregoing sketch, however exhausting, is not exhaustive;

[32] *La nouvelle maison rustique. . . .*, 1:1–2 (ed. 10, Paris, 1772).

[33] *Ibid.*, 2–4.

[34] *Curiosities of Nature and Art. . . .*, author's preface and pages 1–26 (London, 1707).

but it should indicate that there was a long continuity within agricultural literature of originally Classic ideas of the importance, dignity, and virtues of agriculture, and of the virtues of the country life. The incidence of the expression of these ideas was lessened, but by no means did it stop, during the period from the sixteenth to the eighteenth century when, by and large, State favor was concentrated upon urban industry and commerce rather than upon agriculture, and when country life and residence was generally fashionably considered a misfortune to be avoided whenever possible.

In the eighteenth century, this pattern was at least in part reversed. Rural interests in notable cases were able to claim a substantial share of State favor. The Restoration corn laws subsidized English landowners for a century. In France, the discontent of landowners at restrictions upon the grain trade and at other obstacles to agricultural development and profits found expression and partial action in the program of the Physiocrats. A wave of agricultural improvement struck first England, then France, accompanied in each case by a fashionable vogue of interest in agriculture. Agricultural literature increased vastly in volume and found a wider and more important audience. It became the fashion to live in the country, to dabble in agricultural experiments, and even to farm seriously.

Contemporaneously with the increase in fashionable interest in farming and popularity of agricultural literature, the stereotypes traced in this study attained a wide currency. They may be found, for instance, in such an epoch-making poetic work as James Thomson's *Seasons*. Thomson pictured wool (i.e., the keeping of sheep) as the source of Britain's grandeur;[35] he made the traditional contrast of the happiness and innocence of a pastoral-agricultural Golden Age life with the corruption and disorder of urban, commercial existence;[36] and he recited how the ancient greats had loved agriculture and plowed the land, and

[35] Otto Zippel, ed., *Thomson's Seasons*, "Summer," line 423 ff., also 224 (Berlin, 1908).

[36] *Ibid.*, "Spring," lines 267–350.

urged Britons to follow this example, promising that prosperity, virtue, and happiness would result.[37] It is not the purpose here to trespass into literary history, but it is hardly beside the point to remark that preoccupation with rural themes and exaltation of the country, frequently by the employment of stereotypes identical with those we have traced through agricultural literature, were an essential element in the Romantic movement which developed contemporaneously with the spread of the agricultural fad.

A complete catalogue of the spread and penetration, from the early eighteenth century on, of ideas identical with the traditional stereotypes of agricultural literature, would be very extensive. The traditional teaching of agricultural literature that agriculture was the foundation of all economy received a formal and scientific sanction from the Physiocrats, who framed a vast and complicated structure of economic thought upon this as their most fundamental assumption. The conception of the natural man owed much to legendary Golden Age stereotypes, of which agricultural literature carried a full measure. At least one agricultural writer identified the natural man as a farmer, a simple peasant, and in doing so merely followed those traditional concepts of agricultural literature which exalted the simple virtues of the husbandman.[38] Whether or not it was the truth genetically, the whole fundamental notion of the supreme excellence of a state founded upon an agrarian society of small freeholders *could* be made to rest logically upon the foundation of these stereotypes. The same is true of such less tangible conceptions as that which associated, in the popular mind, innocence

[37] *Ibid.*, lines 52-75.

[38] Hans Caspar Hirzel, *Die Wirthschaft eines Philosophischen Bauers.* It appeared first in 1761 in the "Abhandlungen" of the *Naturforschende Gesellschaft in Zürich.* There were numerous editions in German, French, English, and Italian. Although actually based on the life of a peasant then living, the idyllic characterization stressed throughout that the subject was an unspoiled child of nature, and mingled this praise with praise of agriculture. The Addenda of the later editions carried references to other identifications of peasants as unspoiled natural men. The French editions were dedicated to the elder Mirabeau; Arthur Young sponsored its appearance in English; numerous prominent agronomes, Physiocrats, and others, were enthusiastic admirers.

and simplicity with the country, sin and duplicity with the court and city. Whether or not agricultural literature assisted actively and importantly in the dissemination of these conceptions is a question too involved for discussion here.[39] Lack of space forbids documentation. But of the fact that these ideas were an old, old story in agricultural literature, there can be no doubt.

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[39] The writer is at present engaged in a study of this question.

ANIMAL HUSBANDRY IN EIGHTEENTH CENTURY ENGLAND

PART 1

CATTLE

It would be little less than absurd to belittle the achievements of the great stockbreeders of the eighteenth century; but it is no less than that to accept some of the current ideas of the measure of general improvement they effected. In estimating cattle it is very easy to be led into ready generalizations based either upon limited personal experience or upon a too clear view of exceptional individuals. On this subject, as with crops, there is a complete absence of reliable statistics. A measure of average size and its increase, which provides the basis of a too facile generalization, nevertheless widely accepted, has already been severely criticized in a collection of the available evidence.[1] The number of cattle is equally difficult to ascertain, very few estimates being extant, and these usually limited to total numbers. What is known of the approximate weights of the different breeds would supply the basis for a more accurate estimate of the increase in the food supply provided by the improvements of the eighteenth century if any figures relating to the distribution and number of the different breeds were available.

With sheep there is the same difficulty. In spite of the importance of wool the estimates both of gross quantity produced and weight per fleece of the different breeds do not afford a great deal of information. Such as they are, however, they have also been collected and discussed.[2]

[1] G. E. Fussell, "The Size of English Cattle in the Eighteenth Century," *Agricultural History*, 3:160–181 (October 1929).

[2] G. E. Fussell and Constance Goodman, "Eighteenth Century Estimates of British Sheep and Wool Production," *Agricultural History*, 4:131–151 (October 1930).

Horses were used for draught purposes and a few districts engaged in horse breeding for export. The number was believed to have increased during the century, and a few pamphleteers reported that there was an increased consumption of oats owing to the supposed increase in the number of horses, which was due in part to the disuse of oxen for plowing, the increase in transport of goods and passengers, and the luxury of the wealthy classes. Such arguments were almost invariably supported by figures but these it is to be feared were largely drawn from imagination. The same defect in the estimates is apparent.

Pigs were universal and improvements in particular breeds were made so that some districts became famous for bacon and hogs and sent their surplus produce away. Pigs were kept in the dairy districts where they were fed on the waste products of the dairy and upon skim milk, and it is convenient to deal with these two phases of the subject together.

Animal breeding has been fully treated by all historians of English agriculture. Their comments on the subject, however, are largely confined to the famous improvers and have perhaps given rise to the impression that all the livestock of the country was vastly better by the end of the century. This is partly true; there were many improved flocks and herds, but they were mainly the result of breeding on selected lines towards the end of the century, and it is very doubtful whether more than a small proportion of the stock of the country as a whole was really affected. Nevertheless, the foundation of all the modern breeds had been laid by 1800, and they possessed characteristics and possibilities much more valuable than their ancestors.

In the middle of the nineteenth century when *Agricultural Statistics* were first collected, a division was made between the predominantly arable counties and those where farming was mainly grazing. At that time the grazing counties included Northumberland, Cumberland, Durham, Westmorland, Yorkshire (North and West Riding), Lancashire, Cheshire, Derbyshire, Stafford, Leicester, Salop, Worcester, Hereford, Monmouth, Gloucester, Wiltshire, Dorset, Somerset, Devon, and Cornwall, and a large part of Wales was devoted to sheep and

cattle. The English counties covered an area of 12,109,000 acres, of which about 1,286,000 were under wheat, but they grazed 66 percent of the cattle in England and 51 percent of the sheep.[3]

There are no comparable statements for the eighteenth century, but the occasional remarks of the didactic agricultural writers and others show that much the same districts were engaged in grazing and dairy farming at that time, while the dairies of Suffolk and the fattening of Scotch beasts in Norfolk were additional. In 1707 the best breed of cattle was found in Yorkshire, Derby, Lancashire, and Stafford. The Angleseys and Welsh were useful for fatting on middling or barren sort of land. The hardiest were the Scotch, while for milk the long-legged short-horned Dutch of Lincoln and Kent often gave two gallons at a meal. There was also the business of feeding calves for the butcher in Hertford, Essex, and elsewhere near London.[4]

Twenty years later Daniel Defoe was complaining:

> our Corn Grounds are far from being the richest or best of our Lands, the prime of our Land being laid up, as the Plow-men call it, to feed upon, that is, to keep Dairies of Cows, as in *Essex*, *Suffolk* and the Fens, or for grazing Grounds, for fattening the larger Mutton and Beef, for which England is so particularly Fam'd. These grazing Countries are chiefly in *Sussex*, and in the marshes of *Rumney*, and other parts of *Kent;* also in the rich vales of *Aylesbury;* and others in *Buckinghamshire* and *Berkshire*, the Isle of *Ely*, the *Banks* of *Trent*, the counties of *Lincoln*, *Leicester* and *Stafford*, *Warwick* and *Chester*, as also in the County of *Somerset*, *Lancester*, North Riding of *Yorkshire*, and Bank of *Tees* in the Bishoprick of *Durham*.[5]

Another enumeration of the good grazing counties, made some ten years after Defoe's pamphlet, stated: "in the West Country, in *Buckinghamshire*, *Northamptonshire*, *Bedfordshire*, *Warwickshire*, *Lincolnshire*, *Kent*, *Sussex*, *Essex*, and the Marshes in *Middlesex*, *&c.* in all which Places great Numbers of Cattle are

[3] *Agricultural Returns of Great Britain*, 1868, p. 8.

[4] [John Mortimer], *The Whole Art of Husbandry; or, The Way of Managing and Improving Land*, 166, 169 (London, 1707), copied by Society of Gentlemen, *The Complete Farmer* (ed. 4, London, 1793).

[5] Author of the Compleat Tradesman, *An Humble Proposal to the People of England, for the Encrease of their Trade*, 10 ff. (1729).

fed."[6] Towards the end of the century the breeds were beginning to be known by the names of their counties of origin because the varieties were more numerous or more clearly distinguished than in the beginning. Up to 1776 the best English oxen and cows for size and neatness of shape were said to be bred in the counties of York, Derby, Lancashire, Stafford, Lincoln, Gloucester, and Somerset.[7] The topographers, whose evidence is too scattered to cite in full, confirm these statements generally, and the conclusion they lead to is that the effect of eighteenth century progress was not to lay down the Midland Counties to grass, but on the contrary to restrict the acreage devoted to grazing and make them primarily corn-growing counties by the middle of the nineteenth century. That much land formerly arable has since gone back to grass cannot be denied, but if these statements may be accepted the tendency is that indicated, rather than its opposite.

The distribution of the breeds has been sufficiently detailed by Ernle, and can be briefly described in his words.[8] For estimates of seventeenth century views on stockbreeding he uses Gervase Markham's *Cheape and Good Husbandry* (ed. of 1631) and John Mortimer's *The Whole Art of Husbandry in the Way of Managing and Improving Land* (1707) and says:

> Among cattle, the best breeds "for meat" were the long-horned cattle of Yorkshire, Derbyshire, Lancashire, and Staffordshire. The tall long-legged Lincolns, generally "pide," with more white than any other colour, were reckoned the best for "labour and draught." "Those in Somersetshire and Gloucestershire are generally of a blood-red colour, in all shapes like unto those in Lincolne-shire, and fittest for their uses." So for Markham. Mortimer adds other breeds. "A good hardy Sort for fatting on barren or middling Sort of Land are your *Angleseys* and *Welch*. The hardiest are the Scotch." The best breed for milking, in his opinion, was "the longlegged, short-horn'd Cow of the *Dutch* breed," chiefly found in Lincolnshire and Kent.

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[6] Samuel Trowell, *A New Treatise of Husbandry, Gardening, and Other Curious Matters Relating to Country Affairs*, 47 (London, 1739).

[7] [Gervase Markham], *Country Gentleman's Companion*, by a country gentleman from his own experience, 1:110–111 (London, 1753); Robert Brown, of Somersetshire, *The Compleat Farmer: or, The Whole Art of Husbandry*, 19 (London, 1759); John Mills, *A Treatise on Cattle*, 295 (London, 1776).

[8] Ernle, *English Farming, Past and Present*, 137–138 (London, 1936).

No very different distribution or improvement had taken place by 1786.[9]

> In cattle, again, no true standard of shape was recognised. Size was the only criterion of merit. . . . The pail and the plough set the standard; the butcher was ignored. Each breeding county, however, had its native varieties, classified into Middle-horns, prevailing in the South and West of England, in Wales and in Scotland; Long-horns, in the North-west of England and the Midlands; and Short-horns, in the North-east, Yorkshire, and Durham.
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> The Middle-horns in the South and West of England were red cattle of a uniform type; the North Devons, nimble and free of movement, were unrivalled in the yoke; the Herefords, not yet bred with white faces, were heavier animals which fattened to a greater weight; the Sussex breed came midway in size between the two. . . . Other middle-horned breeds were the black Pembrokes, like their Cornish relatives, excellent for the small farmer, and the Red Glamorgans, which in the eighteenth century were highly esteemed as an all-round breed. Every year thousands of the black Angleseys were swum across the Menai Straits to the mainland. Scotland had its West Highlanders; its Ayrshires, second to none as milkers; its Galloways and its Anguses, originally middle-horned but now becoming polled, which were driven southwards to the October and November fairs of Norfolk and Suffolk to be fattened for the London markets. On these imported Galloways were founded the Norfolk breed of polled cattle, and the Suffolk Duns once famous all over England for their milking qualities. The North-west of England and the Midlands were occupied by the Long-horns. Of these the most celebrated were the Lancashires, or Cravens, so called from their home in the corner of the West Riding of Yorkshire which borders on Lancashire and Westmoreland. . . . To the same stock belonged the brindled or grizzled Staffordshires, valued, like the Cravens, for the dairy and for meat. The North of Lincolnshire, the East Riding of Yorkshire, and Durham were famous for the enormous size of their short-horned cattle, which were extraordinary milkers. The Holderness breed, as it was called before its establishment on the banks of the Tees, were "more like an ill-made black horse than an ox or cow". . . . Stock-breeding, as applied to both cattle and sheep, was the haphazard union of nobody's son with everybody's daughter.

Several books on English cattle, written at the end of the eighteenth century, classified the breeds much as George Cully did in 1786. Excluding the Wild White cattle which were more a curiosity than anything else, there were about thirteen recognized breeds. These were the Devons, Herefords, Sussex, the

[9] *Ibid.*, 179–181. Cf. J. Tanner Davy, "A Short History of the Rise and Progress of the Devon Breed of Cattle," Royal Agricultural Society of England, *Journal* (ser. 2), 5:107 (1869); A. N. Duckham, "Baby Beef," *ibid.*, 87:125 (1926); W. H. R. Curtler, *A Short History of English Agriculture*, 167–168 (Oxford, 1909).

Holderness or Dutch, the Lancashire Longhorn, the Leicester, the Alderney, the Highland Stots or Kyloe, the Welsh of two sorts, the Irish, the Suffolk Duns, the Galloways, and Northern or Yorkshire Polls. Slightly different classifications were adopted by the various writers, but these deviations are not significant because they include what may be regarded as variations on the main types.[10]

Ernle has fully described the work of Robert Bakewell as well as his predecessors and his successors, and it would be superfluous to repeat their story here. In his enthusiasm for the great improvers, however, Ernle says that Bakewell's success raised up a host of imitators, and gives the impression that practically all the breeders adopted the improved methods. This implication is very doubtful, especially in the light of our tentative belief that inclosure during the eighteenth century was in the main directed towards improved arable farming. He also accepts as a criterion of the improvement in the general stock the average weights of carcasses sold at Smithfield in 1710 and 1795 as supplied by Sir John Sinclair, with the proviso that Sir John is not always a reliable witness.[11] These figures have now, however, been questioned,[12] and even if they were a true representation of the average carcass weights at the Smithfield market, they need not necessarily reflect a general development. Partly because the best meat animals were sent to London, the "improved" animals as well as the large dairy shorthorns of the suburbs would unduly affect the average, and the largest number of cattle sold there in any one year was not much more than 110,000. The average number sold annually at Smithfield in the years 1790–1794 represents an increase of approximately

[10] George Culley, *Observations on Live Stock*, 40–83 (London, 1786); George Garrard, *A Description of the Different Varieties of Oxen common in the British Isles* (London, 1800); John Lawrence, *A General Treatise on Cattle, the Ox, the Sheep, and the Swine*, 34 (London, 1805); William Bingley, *Memoirs of British Quadrupeds*, 398 (1809); Richard Parkinson, *Treatise on the Breeding and Management of Livestock*, 105–138 (London, 1810).

[11] Ernle, *English Farming*, 188.

[12] See footnote 1.

32 percent over the average for 1732–36,[13] and the number sold in any one year represents a very small proportion of the whole cattle population of the country. There are few estimates of the number of cattle, and these are really only guesses. Gregory King gave the total as 4,500,000 in 1696; Arthur Young, at slightly more than 3,500,000 in 1779; and Michael G. Mulhall thought that there were only 5,220,000 in the United Kingdom in 1831.[14] While these figures cannot be freely accepted, they approximate modern statistics, and it can be supposed that the actual number did not vary a great deal except when there was a cattle plague.

The eighteenth century was not free from visitations of grave disorders and misfortunes among the livestock. Disease was rife in the early years but died down by 1714, only to break out again in 1740 when many cattle died in Cheshire, Wales, and Devon.[15] It was also prevalent in London in 1744, and an order to slaughter the diseased beasts was issued in December 1745. The ruin caused by this attack was compared with that of 1711–13, and one lady recorded that nothing but mutton could be bought in London.[16] An outbreak at Hull in 1748 seems to have been so severe that the market for horned beasts at Ponte-

[13] Select Committee of the House of Commons, appointed to [consider] . . . the cultivation and improvement of the waste, uninclosed and unproductive lands of the kingdom, . . . The first report of the, 1795; App. House of Commons *Annual Report* (ser. 1) 59:202.

[14] Gregory King, "Natural and Political Observations and Conclusions upon the State and Condition of England, 1696," in George Chalmers, *An Estimate of the Comparative Strength of England* (1802); Arthur Young, *Political Arithmetic; Pt. 2, Containing Considerations on the Means of Raising Supplies Occasioned by Mr. Pulteney's Pamphlet* (London, 1779); M. G. Mulhall, *Dictionary of Statistics*, 15 (ed. 4, revised, London, 1903).

[15] Richard Brocklesby, *An Essay Concerning the Mortality, Now Prevailing among the Horned Cattle, in Several Parts of Europe, and Chiefly about London* (London, 1746); William Ellis, *The Modern Husbandman*, 3:131–133 (London, 1750).

[16] D. P. Layard, *An Essay on the Nature, Causes, and Cure of the Contagious Distemper among the Horned Cattle in these Kingdoms*, 12 (London, 1757); E. F. D. Osborn, ed., *Political and Social Letters of a Lady of the Eighteenth Century, 1721–1771*, 87 (New York, 1891).

fract was not reopened until May 8, 1756.[17] There were cattle losses in 1741 due to the failure of the hay harvest, and again in 1762. A further shortage in the meat supply resulted from floods and frost which destroyed the fodder and turnips in the winter of 1770–71 and the drought in the following summer which spoiled the hay.[18] This last series of misfortunes caused one writer to ask what the country would have done if there had been no Scotch or Welsh cattle.[19] William Marshall wrote that the grazing grounds of Yorkshire were not fully stocked if no Irish cattle arrived, and commented on the few cattle apparent when the supply was kept back by East winds in April 1786, after the drought of the previous year when the cattle had to be killed whether fat or lean.[20]

The shortages caused by these successive misfortunes are reflected in the number of cattle sold at the Smithfield market. Though this number had been rising since 1732 it began to decline in the forties and in 1748 it fell below that of 1732 and approached the same low level again in 1751. It then continued fairly low until 1757, reached a high point of over 100,000 in 1762, and then dropped to about 80,000 or less for several years. After 1770 it shows a general upward tendency in spite of lack of winter fodder.[21]

While this increasing number of animals was being driven to London each year, some improvement was made. The efforts and achievements of certain individual breeders were carefully

[17] Malcolm Flemyng, *A Proposal in order to Diminish the Progress of the Distemper Amongst the Horned Cattle &c.*; "A Family History Begun by James Fretwell," *Yorkshire Diaries and Autobiographies in the Seventeenth and Eighteenth Centuries* (Edinburgh, 1877), in Surtees Society, *Publications*, 65:238 (London, 1875).

[18] Ellis, *Modern Husbandman*, 4:106; Powell, *A View of Real Grievances; with Remedies Proposed for Redressing Them*, 237 (London, 1772); House of Commons, *Journal*, 29:1046 (1764).

[19] John Dove, *Strictures on Agriculture* (London, 1770).

[20] William Marshall, *The Rural Economy of Yorkshire*, 2:210 (London, 1788), and *The Rural Economy of the Midland Counties*, 2:100, 293 294 (London, 1790); cf. his *Rural Economy of Norfolk*, 1:327 (London, 1787).

[21] House of Commons, *Reports* (ser. 1).

described by James Sinclair and James Macdonald in their histories,[22] but these works lead to the conclusion already reached, namely, that improvement was mainly in conformation rather than size and that it was more general after the end of the eighteenth century than before. The meat requirements of the increased population of London, for instance, were supplied partly by a larger number of animals and partly by the increased amount of meat which each animal carried. Besides, in a large part of the country, the farmers were changing from oxen to horses for plowing and the stock was consequently released from labor and available for the meat market at an earlier age. Only in those regions where oxen were still used for plowing was the beef as old in 1800 as in 1700. In the early years of the century it was common to put the oxen to work at three years old and to fat them off at about ten.[23] Even then, some were brought to maturity at a comparatively early age. Edward Lisle, whose book relates to the earlier period, wrote, "a cow calf would make very pretty beef at three years old," but not before, while steers did not until four or five years and in any case were not profitable to fatten except where used for plowing.[24] By the third quarter of the century the earlier age of fatting was beginning to be noted.[25] Although many other

[22] James Sinclair, ed., *History of the Devon Breed of Cattle* (London, 1893); James Macdonald and James Sinclair, *History of Hereford Cattle* (London, 1909).

[23] John Houghton, *A Collection of Letters for the Improvement of Husbandry and Trade*, 3:109 (1681); A. S., Gent., *The Husbandman, Farmer and Grazier's Compleat Instructor* (London, 1697); Mortimer, *Whole Art of Husbandry*, 166; Giles Jacob, *The Country Gentleman's Vade Mecum*, 14 (London, 1717); *Dictionarium Rusticum, Urbanicum & Botanicum* (London, 1717); John Laurence, *A New System of Agriculture*, 129–130 (London, 1726); Thomas Hale, *A Compleat Body of Husbandry*, 2:33–34 (London, 1758). In Yorkshire a pair were worked seventeen years. "The Journal of Mr. John Hobson," *Yorkshire Diaries and Autobiographies in the Seventeenth and Eighteenth Centuries* (Edinburgh, 1877), in Surtees Society, *Publications*, 65:250 (London, 1875).

[24] Edward Lisle, *Observations in Husbandry*, 222 (London, 1757).

[25] *Political Speculations, or An Attempt to Discover the Causes of the Dearness of Provisions & High Price of Labour in England*, 16 (London, 1767), "Graziers give us beef of two to three years old instead of six to seven." [Arthur Young], *The Farmer's Tour through the East of England*, 1:392 (London, 1771),—"Four years old fat." Thomas Comber, *Real Improvements in Agriculture*, 57 (London.

writers commented on the older ages of the fatting cattle,[26] there was undoubtedly a tendency towards early maturity, for the growing demand for smaller joints and the economy of feeding involved in producing younger animals in rapid succession was appealing to the farmers.[27]

Several writers, both before and after the early experiments, described the ideal type of animal at which the breeders should aim. These specifications show a surprising measure of agree-

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1772); Marshall, *Rural Economy of Norfolk*, 1:323, "The native cattle . . . fatting as freely, and finishing as highly, at three years old, as cattle in general do at four or five."

[26] John Campbell, *A Political Survey of Britain*, 2:166–167, 169 (London, 1774). Bulls no use at 4–5 years, cows prime between 5–8, ox at 7. Ox fatted 10–11; [Joseph Wimpey], *Rural Improvements*, 182 (London, 1775), "oxen usually sold at seven."; Mills, *Treatise on Cattle*, 303,—"oxen . . . generally fattened . . . tenth year"; [Henry Home, *lord* Kames], *The Gentleman Farmer*, 192 (ed. 3, Edinburgh, 1788), "The proper time to enter them upon fattening food, is at the age of seven."; William Marshall, *The Rural Economy of Glocestershire*, 1:221, 241 (London, 1789), "*aged cows* . . . are usually thrown up at eight or nine years old . . . six-year-old oxen . . . proscribed and cut off in the fullness of their strength and usefulness."; T. A. Knight, "Account of Herefordshire Breeds of Sheep, Cattle, Horses, and Hogs," in Gt. Brit. Board of Agriculture, *Communications to the Board of Agriculture; on Subjects Relative to the Husbandry, and Internal Improvement of the Country*, 2:178 (London, 1800), "oxen which have been worked, are sold to be fatted at five; cows continue profitable milkers from twelve to sixteen"; John [Southey] Somerville, *Facts and Observations relative to Sheep, Wool, Ploughs and Oxen* (ed. 3, London, 1809), on H. M. Farm at Windsor 50 three-year olds brought into work every year, fatted at 6. See also his "On the Advantages of the Use of Oxen and Neat Cattle in Husbandry," in Bath and West and Southern Counties Society, *Letters and Papers on Agriculture, Planting, &c.*, 10:59 (London, 1805).

[27] James Anderson, *Recreations in Agriculture, Natural-History, Arts and Miscellaneous Literature*, 3:92 (London, 1800),—"Small beasts will always find a ready market"; Charles Gordon Grey, "On the most profitable size of farming cattle," Bath and West and Southern Counties Society, *Letters and Papers on Agriculture, Planting, &c.*, 10:263. See also the following *County Reports* of the Great Britain Board of Agriculture, London: William Mavor, *General View of the Agriculture of Berkshire*, 372–374 (1809); G. B. Worgan, *General View of the Agriculture of the County of Cornwall*, 138 (1811); John Bailey, *General View of the Agriculture of the County of Durham*, 176, 226 (1810); Arthur Young, *General View of the Agriculture of Hertfordshire*, 185 (1804), and *General View of the Agriculture of the County of Lincoln*, 295–296 (1799); John Middleton, *View of the Agriculture of Middlesex*, 411–413 (1798); John Bailey and George Culley, *General View of the Agriculture of the County of Northumberland*, 16 (1794).

ment, which may be the result of the writers copying each other, or of a real agreement regarding the type of beast considered most desirable. At the end of the seventeenth century the grazier was advised to buy lean oxen as young as possible for fatting and to see that they had smooth hair and licked themselves. Their eyes should be black, full and shining, ribs broad, hide thick, and skin not loose.[28] Bradley described the best cattle as large, with well-built and sound limbs, long, large and deep-sided bodies, white horned, broad forehead, great-eyed and black, ears rough and hairy, jaws large and wide, lips blackish, neck well brawned and thick, dewlap large, shoulders large, legs well set, full of sinews, rather short than long. Cows should be high of stature, long-bodied, having great udders, broad forehead and smooth, fair horns and smooth, the other characters being the same as the bull.[29] At about the same time John Laurence suggested that a good breed of cow could be obtained by selecting a good bull. "He should have a broad and curled Forehead, long Horns, fleshy Neck, and his Belly long and large. But of late Years, and especially in the *North*, the *Dutch-Breed* is much sought after and coveted, which have *Short Horns* and *long Necks*; and they are purchased at very dear Rates."[30]

In the fifties, a Somersetshire grazier named Robert Brown, evidently a practical man, provided a more detailed description.

> For the shape of your bull, he should be one of a sharp quick countenance, his forehead broad and curled, his eyes black and large, his horns long, his neck fleshy, his belly long and large, his hair smooth like velvet, his breast big, his back strait and flat, his buttocks square, his thighs round, his legs straight, and his joints short; this sort of bull is the best for breed, and makes the best oxen for draught. The cow ought to have a broad forehead, black eyes, great clean horns, her neck long and thin, a large deep belly, thick thighs, round legs, short joints, a white large deep udder, having four teats, and her feet large.[31]

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[28] Gent., *Husbandman, Farmer and Grazier's Compleat Instructor.*

[29] Richard Bradley, *The Gentleman and Farmer's Guide for the Increase and Improvement of Cattle*, 128, 131 (London, 1729).

[30] Laurence, *New System of Agriculture*, 130.

[31] Brown, *Compleat Farmer*, 20; cf. *Country Gentleman's Companion*, 2:112.

Brown said that the ox was much the same shape as the bull, and in the year after his book was published an anonymous writer elaborated this description after laying down similar rules for choosing bulls and cows. Great care should be taken in choosing the beasts of either sex because the breed will take partly after the one and partly after the other. The cows will take after the cow, but the oxen will depend very much upon the bull. If the first oxen are purchased, they should be chosen well-shaped, the body should be large, the legs long and strong, the eyes full and the horns very large; and the coat must be smooth and even. Only those of the same size should be yoked together.[32] In 1779, farmers, when making the choice of cows to breed from, were advised to "see that they have eight or ten white teeth in their jaw, that the breast be broad, the tail long, the veins of the belly distinguishable, the brace of the navel long, a broad forehead, large black eyes, wide nostrils and wide ears."[33]

A Lincolnshire grazier at the end of the century thought that oxen should be wide in their hips, backs, and bosoms. The best feeders generally had long round ribs, short legs, sharp and bold eyes, and a delicacy in their horns. The mellowness of their flesh could only be judged by handling.[34]

All these writers have something to say about the advantages of the different breeds, but it is fairly clear that they preferred the longhorn for most qualities. That is perhaps an additional reason why Bakewell based his experiments on this breed. Ernle has concisely described their results.[35]

> It was his material not his system which failed. He endeavoured to found his typical race on the Lancashires or Craven Longhorns which were the favourite cattle in Leicestershire, and, in his opinion, the best breed in England.

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[32] [John Ball], *The Farmer's Compleat Guide through all the Articles of His Profession*, 396 ff. (London, 1760); cf. Josiah Ringsted, *The Cattle-Keeper's Assistant*, 32–33 (ed. 9, London, 1774).

[33] Agricola Sylvan, *The Farmer's Magazine*, 4:83 (London, 1779).

[34] *Essays on Agriculture Occasioned by Reading Mr. Stone's Report on the Present State of that Science*, 50 ff. (London, 1796).

[35] Ernle, *English Farming*, 187–188. Cf. citations in footnote 22.

This opinion was general at the time. Nearly all the topographers considered the Somersets and Lancashires the best breeds in England, and some added the Lincolns.

He based his improvements on the labours of two of his predecessors. Sir Thomas Gresley of Drakelow, near Burton-on-Trent, began about 1720 the formation of a herd of Longhorns. On this Drakelow blood Webster of Canley, near Coventry, worked, and to his breed all the improved Longhorns traced their descent. Bakewell founded his experiments on a Westmoreland bull and two heifers from the Canley herd. To them he applied the same principles which he followed in sheep-breeding, and with great success. As graziers' stock, the breed was greatly improved. But as milkers, the new Longhorns were deteriorated by their increased propensity to fatness. In a county like Leicestershire which depended not only on feeding stock but on dairy produce, this poverty of milking quality was a fatal objection. Even in his Longhorns Bakewell did not long retain the lead. It soon passed away from him to Fowler of Rollright, in Oxfordshire. But the breed itself was beaten by one which possessed superior natural qualities. Almost throughout England [a picturesque exaggeration] the Durham Shorthorns, founded on the Holderness and Teeswater cattle, jumped into the first place, as the best rent-payers, both as milkers and meat-producers. The Ketton herd of Charles Colling became to cattle-breeders what Bakewell's Dishley flock of New Leicesters were to sheep-masters.

A hundred years later, Bakewell's favorite breed was almost extinct.[36]

As early as 1736 William Allen suggested that the area under corn had doubled and that this increase had been caused by the importation of Scotch cattle after the Union in 1707 at so cheap a rate as to make grazing unprofitable.[37] However that may be, English meat met with nothing but praise from Pehr Kalm.

Whether it is of Ox, Calf, Sheep or Swine, [it] has a fatness and delicious taste, either because of the excellent pasture, which consists of such nourishing and sweet-scented kinds of hay as there are in this country, where the cultivation of meadows has been brought to such high perfection, or some way of fattening the cattle known to the butchers alone, or for some other reason.[38]

An opposite view to that of Allen was held by an anonymous writer who said the farmers could find no encouragement for

[36] H. Evershed, "The Agriculture of Staffordshire," Royal Agricultural Society of England, *Journal* (ser. 2) 5:270 (1869).

[37] William Allen, *Ways and Means to Raise the Value of Land: or, The Landlord's Companion*, 13, 18 (London, 1736).

[38] *Ibid.*, 15.

grain and were converting their land into pasture, which was then much more advantageous both to the landlord and tenant, although destructive of the poor.[39] Campbell expressed the reasonable view that "surely our Oxen, Sheep, and Horses are evidently increased as much as the Produce of our Arable Land."[40]

Toward the end of the century the importation of foreign corn gave rise to fears for the future of arable farming, and it was said that this means of supplying the necessities of the people was very much against the landed interest and that eventually farming would give place to grazing.[41] A more practical reason for the changes that were taking place was given by a farmer in 1795. In his opinion stock would replace tillage on all soils where the average produce did not exceed 12 bushels of wheat and 20 bushels of barley per acre, which probably included, he thought, the greater part of the tillage land of the Kingdom.[42] However, the Select Committee on the Depressed State of Agriculture reported in 1821 that the produce of both arable and pasture had been mounting with increasing rapidity in the past fifty years.[43]

Apart from the selection and care exercised in breeding, the new forage crops, both grass and legumes, which had been steadily, though slowly, growing in favor throughout the century, aided in the improvement of the stock. There are scattered references to a system, which, with the help of modern artificial fertilizers, has recently been occupying the attention of graziers under the title "Rotational Grazing."

[39] [Richard Onely], *An Impartial View of English Agriculture*, 21 (London, 1766).

[40] John Campbell, *A Political Survey of Britain*, 2:271, footnote g.

[41] *The Corn Distillery stated to the Consideration of the Landed Interest* (ed. 2, 1784); William Mitford, *Considerations on the Opinion stated by the Lords of the Committee of Council . . . upon the Corn Laws*, 20 (London, 1791). These pamphlets, together with those cited above, are, of course, only specimens of the hundreds published.

[42] *Observations on the Present High Price of Corn; with Hints on the Cultivation of Waste Lands*, 32 (Bristol, 1795).

[43] Select Committee on the Depressed State of Agriculture, *Report*, 1821, p. 19.

In 1739 Trowell told his readers that "It is a great Advantage to the Feeder to have several Grounds to shift often, which bring Cattle forward very fast; and in three Weeks or a Month's Time those Grounds will be ready again to receive them; which does add very much to the fatting of them."[44] Hale repeated this advice because changing the cattle from close to close would give the beasts a change of food and also allow the grass to spring, the cattle preferring new growth.[45] James Anderson was even more modern in 1775 when he suggested dividing the pasture and grazing off each portion in rotation.[46] After the turn of the century, a Leicester grazier recommended heavy stocking and frequent change of pasture as the best method of bringing on the cattle quickly.[47]

The progress of the new forage crops was slow and a word of warning must be given against regarding the frequency of their mention by the didactic writers as a reflection of their widespread cultivation. These writers, unless they explicitly mentioned a district or farm, were usually uttering recommendations, not invariably put into practice. There are, for instance, numerous references to fattening on hay and straw.

At the beginning of the century Lisle reported that his ground would fat cattle in the spring when the sap was flush; "but it must be the aftermass of good ground only, when September and October come, that will hold a bullock, and carry him on when near fat." The poverty of grass may be seen at that time by its dying away and losing color and then it is lost on a bullock.[48] Even before his time, however, it had been the practice to pasture cattle followed by sheep on sainfoin and ray grass in the Chiltern country;[49] and nearly a hundred years afterward the rich meads of Lincolnshire were compared to the state of pasture

[44] Trowell, *New Treatise of Husbandry*, 47.

[45] Hale, *Compleat Body of Husbandry*, 2:38.

[46] [James Anderson], *Essays relating to Agriculture and Rural Affairs*, 443-450 (Edinburgh, 1775).

[47] Great Britain Board of Agriculture, *A General View of the Agriculture of the County of Leicester*, by William Pitt, 161 (London, 1809).

[48] Lisle, *Observations in Husbandry*, 223.

[49] [Robert Plot], *The Natural History of Oxford-shire*, 250 (Oxford, 1677).

in most other counties much to the disadvantage of the latter. The majority afforded no food for cattle in the dry summers and very little in winter, and tillage was absolutely necessary for their support because the straw and chaff of the exported grain would supply feed.[50]

Turnips were the grand basis of the Norfolk husbandry. They were not folded by sheep but pulled and fed to cattle. The stock was fed on the stubbles, from bins, or in sheds with nothing but barley straw added. No hay was used, even for fatting cattle, when the turnips were fed on the stubbles. Sometimes they were half drawn for feeding, the balance being drawn and spread for the sheep. In 1787, the land in this county was said to be clover sick as the crop would last only one year. Rye grass was reckoned better for finishing turniped bullocks in the spring. Barley was only used for horses. Because the soil was unsuitable Norfolk had very little natural grassland.[51]

Thomas Comber, writing from Huntingdonshire after leaving Yorkshire, noted that there were no turnips there, though grown in Norfolk, Suffolk, and Leicester, and no cabbage in the field culture, a reminiscence of his Yorkshire experience. The carrots were good in deep sand; cole seed was grown in the Fens; and the prime graziers in his district continued the practice of feeding oxen with oil cake.[52] In the North cabbages were much esteemed as fodder and regarded as next in value to turnips; indeed on clay or strong lands they might perhaps be superior to turnips, but they would not bear bad management. A good acre would produce from 50 to 60 tons of Scotch cabbage and a large ox (Shorthorn) of 80 to 100 stone in weight would eat about 15 stone of cabbage and half a stone of hay every twenty-four hours. As such a diet would fatten him in four or five months, it was a definitely profitable crop. However, the quickest feeding a beast could take was a mixture of linseed oil and bran, a half pint to a peck, fed in three feeds at two pecks a day.[53]

[50] [Richard Onely], *Impartial View of English Agriculture*, 21–22.

[51] Marshall, *Rural Economy of Norfolk*, 1:256, 287–298, 302, 310–311.

[52] Comber, *Real Improvements in Agriculture*, 48–51, 71.

[53] Charles Varlo, *A New System of Husbandry*, 3:191 ff., 225 (ed. 4, Winchester, 1774); cf. John Randall, *The Semi-Virgilian Husbandry*, 315–325 (London, 1764).

Straw and a little hay were considered sufficient for working cattle in winter, but more hay than straw should be fed in summer when they were working. Artificial grass and roots were also good foods, but the cattle should not be pastured before the middle of May, and they should be housed by the middle of October.[54] The Devon cattle which were becoming a famous breed toward the end of the century were kept on the wastes in the summer and on straw in the winter, and tied in when four years old.[55] This was evidently the ancient practice in Devon and Somerset and in the West of England generally. In the early years of the century the oxen, when worn with plowing, were fatted on fresh pastures,[56] but by the middle years at least, perennial red clover, then known as marl-grass, had become a general crop for pasture, hay, or seed, in Somerset and some of the neighboring counties.[57] In the Gloucestershire dairy district the cattle were said to be deficient in chine and too long in the leg. The dairymen raised their own cows, but some bought part of their stock at Gloucester market. Cows eight to nine years old were fatted on the farm. The milk was used for making cheese and butter, and the calves were, therefore, weaned when two or three days old and given heated milk and later fed on the cullings of the dairy. Welsh cattle and some Herefords were fatted on grass and finished with hay in the 1780's. There was some stall fatting on oil cake, but this practice had only been common for twenty or thirty years. Hay, corn, cake, and linseed were used, and the cattle fed were chiefly Herefords, some of the larger Welsh and Somerset, and a few Devons at six years old. Half to a peck of cake a day was used. On the Cotswolds, though each craftsman and laborer had a cow, there was no fattening. In the North Wiltshire dairies the cheese was made entirely from hay.[58] The black cat-

[54] Mills, *Treatise on Cattle*, 301.

[55] Paul Treby, *Devonshire Cattle Annals*, 17:305 (1792).

[56] Richard Bradley, *Complete Body of Husbandry*, 55 (London, 1727).

[57] Richard North, *An Account of the Different Kinds of Grasses Propagated in England*, 4 (London, 1759).

[58] William Marshall, *Rural Economy of Glocestershire*, 1:211–257; 2:75, 98–103, 163.

tle of North Wales, as well as the sheep, found pasturage on the sides of the mountains, roving wherever their inclination led them, attended by no keepers and confined by no fences.[59]

Summer fatting on grass prevailed in southern and eastern Leicester and much of Northampton, although hay and brewer's grains were used near Burton, but the general system in the Midland Counties, especially where the clover ley had been introduced, was to shut up the pastures in winter to supply spring feed, and the proportion of aftermath required was reckoned at an acre for each cow. Turnips were not common here, and there were few cabbages.[60] Marshall was moved to an animadversion on the general condition of livestock. Except the improvement in cart horses, longhorn cattle and longwool sheep in the Midlands, cattle and sheep in Yorkshire and sheep and horses in Lincoln, he observed that the stock was in a state of neglect and called loudly for improvement. He did not like the longhorns, in which he showed great foresight, but the breeds which might be brought to his ideal form and shape were the Hereford, Gloucester, and South Wales, the Yorkshire short and middle horns, and the Sussex, Devon, and Somerset middle horns.[61]

The Yorkshire cattle of which Marshall approved were universally kept in the house and foddered on straw, but potatoes with hay or barley meal were also used for fatting.[62] In the more northerly counties of Northumberland and Cumberland the cows laid out and fed in warm inclosures in the winter and only hay was supplied, except for five or six weeks when split beans and oats were given.[63] Some oil cake was used in Kent, although the cattle were tethered on the leys in the Isle of Thanet.[64]

[59] Arthur Aikin, *Journal of a Tour through North Wales*, 94 (1797).

[60] Marshall, *Rural Economy of the Midland Counties*, 1:253, 259, 263–291, 361–362.

[61] *Ibid.*, 1:456–457, 481–482.

[62] Marshall, *Rural Economy of Yorkshire*, 1:401; 2:63.

[63] [William Mackintosh], *A Treatise Concerning the Manner of Fallowing of Ground . . .*, 47–52 (Edinburgh, 1724).

[64] William Marshall, *The Rural Economy of the Southern Counties*, 1:322; 2:35 (London, 1798); [Arthur Young], *Rural Oeconomy*, 43–47, 97, 105, 121 (London, 1770).

While there were various estimates on the consumption of grass and other food by the cattle in different parts of the country, the area of grass required to keep a beast did not materially differ from that required today, as indeed might be expected. Remarks on the subject are scattered throughout Young's *Tours* and *Annals*, Marshall's Rural Economies, and the *County Reports*. The references are so numerous that it is an almost hopeless task to attempt to collect and classify them. A few examples of the value of the newer crops in feeding may, however, be usefully given. In 1770 Young estimated that 30 acres of carrots and 20 of sainfoin hay would winter fat 100 steers of 50 stone each, in warm sheds, exceedingly well, while 20 acres of cabbages and 10 of clover hay would do the same for 80 steers or heifers of 40 stone and that plentifully. Again 80 acres of clover hay (240 tons) and 60 of turnips would form winter keep for 240 oxen of 60 to 70 stone. Two and a half acres of grass would be required to keep a cow all the year, 1 to 1½ acres being necessary in the summer, and hay and aftermath from the balance for the winter. An acre was necessary to summer fat a beast of 40 stone, but some grass was rich enough to fatten a beast of 60, 70, or 80 stone. The variations mentioned for growing forage on an acre of land and the uses to which it might be applied when grown form an interesting commentary on the possiblities open to a farmer imbued with the new ideas, but were, of course, like so much of Young's early writings, ideal rather than the experience of practical men. A general rule of thumb mentioned was that a beast ate half his live weight in twenty-four hours. Matthew Peters, for instance, thought that a stall-fed bullock of 600 weight ate 300 weight of turnip-rooted cabbage and dry straw in that time.[65] Nathaniel Kent held that 20 acres of turnips would fatten 15 bullocks and support 10 followers for twenty-five weeks, or maintain sheep at the rate of 8 to 1 bullock.[66] Thomas Bowden thought that a beast would eat half his beef weight, plus 7 pounds of hay, in twenty-four hours, his feed being a mixture of cabbages, carrots, turnips, and

[65] Matthew Peters, *The Rational Farmer*, 59 (ed. 2, London, 1771).
[66] Nathaniel Kent, *Hints to Gentlemen of Landed Property*, 125 (London, 1775).

a small proportion of lucerne. His estimates of the produce of these crops were: turnips, drilled, about 30 tons an acre, cabbage the same, carrots 20 tons, lucerne 40 tons green food.[67] The milch cows of London were always fed in the house, and brewer's grains were used to help the milk flow. At the end of the century these cows were fed in winter, 1½ bushels of brewer's grains, 2 bushels of turnips, and 12 pounds of hay. This writer claimed to have made an experiment in feeding oil cake, but it was by no means a new practice when he wrote,[68] having been followed in the Fens for at least a hundred years.[69]

These details on the newer methods of feeding do not alter the fact that the majority of the grazing lands of Norfolk were not considered as satisfactory as they might have been. The four-course system was practically confined to the east-coast counties and was only sporadic elsewhere. Although it provided both fodder and food in the most economic manner, beasts in other districts were being bred and fattened in the same way as they had been for centuries. The Fens increased the use of rape as a crop because of the drainge that had been carried out. Cabbage for feeding was usual in Yorkshire during a great part of the century, and perhaps from there it had been adopted by the London dairymen and some of those of Wiltshire. More carefully selected grass seed was probably general in Leicester and Northants, and in the southwestern counties red clover had become a usual hay and fodder crop except in the extremes of Devon and Cornwall. Turnips were not widely understood in the North where the old system was still largely practiced, and few of the Welsh cattle were fattened before they were sold. Sainfoin had been adopted on the chalk hills before the opening of the century. Lucerne was not generally adopted, being a crop for gentlemen's experiments. On the whole, however, sufficient progress had been made during the century to overcome the diffi-

[67] Thomas Bowden, *The Farmer's Director; or, A Compendium of English Husbandry*, 121–123 (London, 1776).

[68] J. C. Curwen, *Hints on Agricultural Subjects*, 39, 44 (ed. 2, London, 1809).

[69] John Morton, *The Natural History of Northampton-shire*, 491 (London, 1712).

culty of wintering the beasts which had once been so grave a problem. As late as 1764 the farmer was being advised to kill his beasts at Michaelmas to obviate this difficulty.[70]

The traffic in cattle was no doubt larger at the end of the century than at the beginning because of the demands of the increased population. The trade was possibly more stabilized and districts had become more specialized in the branch of the business they undertook, some breeding for the fatting grazing districts and some having an eye only on the product of the dairy.

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[70] Walter Harte, *Essays on Husbandry*, Essay 2, p. 134 135 (London, 1764).

SOME CRUCIAL YEARS OF THE GENERAL LAND OFFICE, 1875–1890

No account of America's "robber barons" is complete without a description of the activities of the General Land Office of the Department of the Interior during the years 1875 to 1890. At the beginning of this period the bureau had supervision of nearly one billion acres of public land, or approximately one-half of the United States. These lands contained immensely valuable natural resources and drew the attention of land-grant railroads, timber and irrigation companies, stock raisers, and other groups eager to exploit them. These groups promoted the rapid development of the West which, according to Lord Bryce, was inimical to its welfare. Yet in so doing they were only following the practices of their Eastern business contemporaries who were finding concentration so advantageous.

Although Henry George noted that concentration was the trend of the times as early as 1871, he believed that it was possible to delay land monopoly with consequent benefit to the country.[1] His opinion is borne out by the nexus which developed between the Government and western predatory interests. A contemporary, Judge David Davis, later described the relationship as follows:[2]

"The great corporations and other monopolies have for many years been stretching out their strong and unscrupulous arms over the public lands remaining for enterprising and honest settlers. Millions of acres of this domain have been seized and stolen, and I have to say this robbery could not have succeeded without the collusion and cooperation of agents employed to protect the interests of the people. . . .Immense combinations have been formed, including the ties of political and social life,

[1] Henry George, "Our Land and Land Policy," in *Writings of Henry George . . . (Memorial ed.)* 9:97–99 (New York, 1901).

[2] *Congressional Record*, 17:6245 (June 28, 1886).

for a common object—to break down all attempts at Washington to crush out a venal system which has flourished by departmental indifference or favor."

The questions naturally arise as to how millions of acres of public land could be stolen, why the General Land Office was indifferent to the robbery, and in what way it cooperated with the thieves. The answers can be found in the history of the bureau from 1875 to 1890. During these crucial years the Federal Government had the opportunity to provide a comprehensive plan for land disposal under a department of public lands. Instead of adopting a suitable policy, Congress permitted reckless absorption through inadequate and faulty administration.

The generation that preceded the closing of the frontier lines witnessed a constant increase in the land business. The Government enacted a host of new land laws from 1862 to 1878, including the homestead, the timber culture, desert land, and mineral acts, and railroad and educational grants. The work of the General Land Office was augmented because of the remarkable increase in the absorption of lands which resulted from these laws. In 1877 the Government disposed of 4,850,000 acres, and in 1884 the amount was 27,530,000 acres.[3] For the years 1884 to 1890, the annual average was about 20,000,000 acres.

While the duties and responsibilities of the General Land Office were thus expanding, its machinery for handling them remained inefficient, antiquated, and inadequate.[4] Created in 1812, it had been reorganized only once, and that was back in 1836. It had been placed under the Interior Department in 1849, and no legislative changes had been made thereafter. With a long list of bureaus with diverse interests and objectives demanding his attention, the Secretary of the Interior was unable properly to supervise the Office. In addition to Cabinet duties and political responsibilities he was supposed to administer the

[3] U. S. General Land Office, *Annual Report*, 1877:1, and 1884:4. Hereafter cited as *G. L. O. R.*

[4] Milton Conover, *The General Land Office; its History, Activities and Organization* (Baltimore, Md., 1923).

bureaus dealing with the public lands, Indian affairs, patents, pensions, the census, railways and wagon roads, education, and sundry local works and institutions in the Federal Capital. Cases on appeal and requests for instructions formed his principal contact with the Land Office, unless perchance he had a personal interest in a particular matter. Many of the appealed cases were handled by the law officers of the Department and received only his formal attention. If his personal interest was involved, the Secretary could direct the Commissioner of Public Lands to submit the particular case for review, and the law officers could be called on for the necessary precedents. Cases of real doubt might be referred to the Attorney General's office.[5]

The Secretaries felt no obligation to establish consistent policies in land rulings. Evidence on this point is found in an amusing incident referred to in *Copp's Land Owner*, the foremost land paper of the time. On November 15, 1885, it congratulated a retiring law officer on his services to the Government, remarking that he had furnished "valuable precedents on all sides of nearly every question of importance . . . during the past fifteen years." This two-edged compliment must have brought a protest from the official, for the following issue of the paper explained that it had meant no insult. It recognized that "no subordinate in the land service can be held responsible for the decisions of his superior officers."[6] The *Land Owner's* unintended indictment called attention to a situation which it repeatedly emphasized.

The manifold duties of the Secretary placed most of the responsibility for supervising the General Land Office on its directing head, the Commissioner of Public Lands. This division of authority hampered efficiency and yet left greater duties on the Commissioner than one man could properly discharge. Abram S. Hewitt of New York asserted in Congress that the Commissioner was "a most overburdened official," and by way of emphasizing the need for a reorganization of the Office, pointed out that he was also "the most important law officer of

[5] New York *Sun*, Jan. 1, 1883.

[6] *Copp's Land Owner*, 12:213, 225 (Nov. 15, Dec. 1, 1885).

the Government if measured by the money involved in his decisions."[7] Until 1884 when provision was made for an Assistant Commissioner, the Commissioner often spent several hours a day merely signing his name to documents. The reorganization of 1836 had established the survey, private land claims, and public lands divisions, and the railroad, swamp land, recording, draughting, accounting, preemption, and mineral divisions had been created from time to time by the Commissioner as responsibilities accumulated due to new land laws. The result was a difference in rank and pay between heads of divisions; for instance, the railroad chief with his greater responsibilities did not equal the chief of survey.[8]

Every report of the Land Office for the score of years preceding 1890 included a convincing plea for a larger and better paid staff of clerks and additional office space. Support for these requests appear in numerous Congressional committee reports,[9] the Public Lands Commission Report of 1880, and the annual reports of the Secretary of the Interior. In 1876 a 25 percent cut in the staff left only one hundred forty-five clerks, or less than the office had in 1855.[10] It needed everyone who had been dismissed, but Congress was slow in making replacements.

In 1883 the Commissioner lamented that the "increase in working force and appropriations has been doled out in pittances, and seemingly more to accommodate the Department than to meet the demands of the service." To reveal the needs he stated, "If but one-half of these claims should be perfected into title it would take the present force employed upon this work three years to complete the adjustments, leaving the whole volume of business that might come up within that period unprovided for."[11] He estimated that the Office required two hundred extra clerks, some to be kept permanently to clear up work in arrears. That conditions were not greatly improved by 1888 is indicated by the testimony of Secretary William F. Vilas.

[7] *Congressional Record*, 8:1205-1206 (Feb. 11, 1879).
[8] . Conover, *General Land Office*.
[9] U. S. Congress, 47th, 1st sess., *Senate Report 362*, p. v–vi (Washington, 1882).
[10] *G. L. O. R.*, 1876:14-15.
[11] *Ibid.*, 1883:31-32.

"My attention has been drawn to no branch of governmental administration which appeals so cogently, in every respect of wisdom and justice, for intelligent, thorough and effective Congressional action for its relief as the Land Office."[12] Although the Office staff had increased two and one-half times between 1876 and 1887, the amount of land absorbed had risen five-fold.[13] The insufficiency of the staff in 1887 stands out clearly in comparison with the number employed in 1931 when there were five-sixths the number of clerks to do one-fifth the current work and practically no arrears.[14]

The employees of the Land Office were also underpaid. Comparison with the Patent Office in 1876 revealed that there were over twenty high-ranking clerks in each bureau. The annual salary for those in the Patent Office was $2,250 but for the Land Office it was only $1,600.[15] Subsequently there was some improvement for the latter, but a sizable discrepancy still existed in 1888.[16] A Senate investigating committee reported that the Land Office clerks showed more ability than would be expected from men whose salary enabled them to "eke out a bare subsistence" and seemed to find a certain smug satisfaction in declaring that it was greatly to the credit of the clerks that so little was alleged against their honor, since they frequently decided cases covering more than a million dollars in value.[17]

The Public Lands Commission in 1880 recommended improvement in the Land Office force by an increase in the number of higher-paid clerks and a decrease in those with lower pay. The Commission demonstrated that such a step would not only result in higher efficiency, but in a saving to the Government.[18] Con-

[12] Dept. of Interior, *Annual Report* (1888) 1:viii.

[13] *G. L. O. R.*, 1887:5.

[14] *Ibid.*, 1931:1,40.

[15] *Ibid.*, 1876:14–15.

[16] U. S. Laws, Statutes, etc., *The Statutes at Large of the United States of America* (1888) 25:285–287 (Washington, 1889).

[17] U. S. Congress, 47th, 1st sess., *Senate Report 362*, p. vi–vii.

[18] U. S. Public Lands Commission, *Report of the Public Lands Commission, Created by the Act of March 3, 1879, Relating to Public Lands in the Western Portion of the United States and to the Operation of Existing Land Laws*, xiii–xiv (Washington, 1880). This is the same as U. S. Congress, 46th, 2d sess., *House Executive Document 46*.

gress refused to authorize the improvement, however, apparently not desiring efficiency even at a saving, and even refused to allow the Office to retain the $8,000 a year that it earned by copying records for interested parties.[19] The time consumed by such work detracted from regular business, and this amount would have enabled the Office to hire eight lower-grade clerks to handle the arrears of business.

There were always applicants for Land Office positions, but the low pay resulted in the constant loss of the ablest men. New clerks readily learned the Government routine and then sought transfer to positions of similar rank but higher pay in other bureaus. Many acquired an adequate knowledge of land laws and Land Office procedure and then resigned for private practice before the Department. Land corporations enticed a large number of trained men by offering good salaries. The New York *World* noted especially the number that gravitated to railroads, insinuating, with plausible evidence, that railroad employment was frequently given for favors received in land decisions while the clerk was serving in the Office.[20] Among a list of about twenty former employees the paper included the names of two successive Commissioners, Burdett and Williamson, who became associated with railroads after leaving office.

Besides the constant turnover of clerks, overcrowded office rooms seriously handicapped efficiency in the Land Office. In 1880 the Public Lands Commission stated that the "room allotted to the General Land Office is not quite the worst that it could be, nor is it wholly inadequate, but it approximates both." The Commission felt that the cramped quarters caused a waste of one-fourth of all the money appropriated for the clerical force.[21] Two years later a Senate committee found that insufficient space, light, and ventilation was damaging the health of the employees and declared that the Land Office needed a new building more than any other bureau or department. The lack of room also exposed valuable papers to damage by fire and

[19] *G. L. O. R.*, 1883:26–27.
[20] New York *World*, May 23, 1885.
[21] U. S. Public Lands Commission *Report*, p. xiv.

theft. There had been a serious fire in 1877 and both before and after that time other papers were destroyed by mold and decay or the ravages of insects and vermin.[22] In 1888 Secretary Vilas observed: "When one reflects upon the almost incalculable value of the records and documents of the Land Office, . . . the cost of providing safe and commodious quarters, in which it will be possible to efficiently reorganize the Bureau so as at least to approximate the objects of its existence, becomes so insignificant as only to intensify the reproach justly due the neglect of such action."[23]

The establishment of a law library was one of the major improvements in the Land Office during the period 1875–1890. The library in 1876 consisted of a few law text-books and broken sets of Supreme Court reports but no State law reports. Of the books on hand there was frequently only one copy for the simultaneous use of several clerks. The land laws had not been codified, and no one was authorized to print the decisions, orders, and circulars for the Bureau.[24] The library was ultimately supplied, and the Public Lands Commission of 1879 codified local, temporary, and national laws and decisions. The records were periodically revised thereafter.

The unremedied handicaps of the General Land Office—crowded quarters, inadequate personnel, overburdened officials, low pay, and rapid turnover of clerks—contributed to unbusinesslike methods and the need for land lawyers. The inefficiency of the methods is revealed by the litigation over the undelivered patent of Thomas McBride of Utah.[25] The case was taken to the Supreme Court and for the second time in history a mandamus was served on a Cabinet officer.[26] McBride had filed an entry for a homestead in Utah in 1869. Five years later he proved up, paid his fees, and secured his certificate from the

[22] U. S. Congress, 47th, 1st sess., *Senate Report 362*, p. i.

[23] Dept. of Interior, *Annual R port* (1888) 1:viii.

[24] *G. L. O. R.*, 1877:3–4.

[25] U. S. Congress, 46th, 2d sess., *Senate Executive Document 181* (Washington, 1880).

[26] "The McBride Case," in *Copp's Land Owner*, 7:146 (January 1881).

local land office. But for three years the General Land Office at Washington did not have time to issue his patent. Meanwhile papers were filed for the incorporation of Grantsville, Utah, as a town, and declaration was made on February 24, 1877 that McBride's homestead entry embraced land rightly within the town and that his entry should therefore be disallowed. The resulting legal contest does not seem to have been recorded in the Land Office, however, either because the clerical work was at fault or the filing system inaccurate. In any case a patent was issued to McBride on September 26, 1877, seven months after the inception of the contest, and sent to Salt Lake City, but before the patent was delivered the Land Office discovered its error and recalled it. McBride went to Washington and demanded his patent. When the Department refused to present it to him, he filed a petition for a writ of mandamus against Secretary Carl Schurz in the Supreme Court of the District of Columbia. McBride received a hearing from the United States Supreme Court and won his right to the patent. In its decision the Court expressed regret that Schurz was obliged to pay the expenses of the proceedings. Greater efficiency in the Land Office would have prevented the trouble and the Secretary's monetary loss.[27]

Additional evidence of inefficiency is found in Commissioner N. C. McFarland's reply to a Congressional inquiry on the status of railroad grants. He explained that it had taken all of his available clerks forty days to prepare the material requested. This delay, he added, "has been caused almost entirely by the failure on the part of this office in the past . . . to adopt and perfect a comprehensive system of procuring and keeping in a concise and convenient form all matters of information relative to each particular grant." Former Commissioners had used the staff to handle current work only.[28] Another report of the Commissioner to Congress stated that his answer must only be taken

[27] 102 U. S. 378.

[28] Thomas Donaldson, *The Public Domain*, 811 (Washington, 1884), quoting U. S. Congress, 47th, 1st sess., *House Executive Document 144*, p. 32 (Washington, 1882).

as approximate as it was impossible for him to obtain accurate data on the railroads under discussion.[29]

The work of land lawyers grew steadily as a result of the situation in the Land Office. In 1888 Secretary Vilas said: "few cases can safely proceed now without counsel." He found the judicial functions of the Commissioner and the Secretary bearing "a strong semblance of the court of chancery, with much of the machinery, methods and peculiarities, *mutatis mutandis*, of that venerable tribunal; . . . the ingenuity of seekers for the landed wealth of the Government and their counsel provokes a seemingly limitless enlargement."[30] If, however, cases were not appealed to the higher authorities, the "company" lawyer had several advantages for his client. When the Government or a settler had an adverse interest in a case there was apt to be no opposing counsel. In addition, the lawyer had direct access to the clerk handling his case,[31] and underpaid and inexperienced clerks naturally welcomed assistance from experienced persons. Although these contacts probably did not result in corruption in most cases, they did open the door to undue or biased influence.

This access of the lawyers to the clerks resulted in what was called a "patent steal" in 1890.[32] A patent to valuable mineral land in the Duluth, Minnesota, region was being held up in the Office because an affidavit charging fraud in the process of acquisition had been filed. The pertinent papers were secured by the attorneys for the claimants, and the affidavit and the order to investigate removed. Then, in the absence of the clerk who had been handling the case, another clerk was prevailed on to rush the patent through.

Lawyers developed the practice of having a case marked "Special," thereby insuring its being handled out of turn. This procedure aided clients who did not want to wait two or three years, and they were charged a fee of $50.00 or more for this

[29] Donaldson, *Public Domain*, 908, citing U. S. Congress, 47th, 1st sess., *House Executive Document 223* (Washington, 1882).

[30] Dept. of Interior, *Annual Report* (1888) 1:ix.

[31] *New York Times*, Jan. 11, 1886.

[32] New York *Tribune*, Jan. 16, 1890.

service.[33] Why the Office permitted the privilege is not quite clear. One of the major objections to Commissioner Sparks developed from his efforts to check the free access of the lawyers to clerks handling their cases and from his drastic limitation on "Special" cases after 1885. The relapse after he had left office brought comments which reveal the extent of previous abuses. In suggesting that the reforms should be permanent, *Copp's Land Owner* stated flatly: "The day should be forever past when a few attorneys stalked through the General Land Office, leading the Commissioner by the nose, bulldozing clerks, ordering their cases made special and dictating the decisions therein."[34] This statement is a convincing indictment of the lawyers' methods and of Land Office procedure.

"Bulldozing" was not the only method used in securing cooperation. Influence, friendship, and even family ties were used. The New York *World* quoted a Washington lawyer as saying: " 'Almost the first question every client asks is, "Have you special influence in the Land Office?" If the reply is in the negative the client generally retires and seeks some one else.' " The same newspaper declared that the outstanding success of the firm Britton and Grey, both former employees of the Land Office, was traceable to two brothers-in-law in the Office. One of these relations was chief clerk and the other was assistant chief of the railroad division.[35]

The unscrupulousness of many land attorneys in handling cases before the Office and in defrauding their clients became notorious. Beginning with Secretary Chandler in 1875, the Department periodically refused attorneys with unsavory practices the right to appear before it. In 1878 Secretary Schurz proscribed one hundred twenty-seven,[36] and later lists of eight to sixteen were published in the *Land Owner*. After Schurz retired, one debarred attorney, charged with trying to bribe a

[33] *G. L. O. R.*, 1886:48.

[34] *Copp's Land Owner*, 14:221 (Jan. 1, 1888).

[35] T. C. Crawford, "The Great Land Steals," in New York *World*, May 23, 1885, p. 1-2.

[36] "Disbarred Attorneys," in *Copp's Land Owner*, 5:90-91 (September 1878).

Land Office clerk, attempted to sue him for ruining an alleged $40,000-a-year practice.[37]

The land service was also burdened by antiquated machinery, inefficient work, and occasional corrupt practices of the district land offices. There were ninety-eight district offices in 1876, each presided over by a register and a receiver.[38] Because the salaries of these officials were small they were allowed fees on all contested cases, until a certain maximum had been reached. Necessity induced many of them to create contests so that their pay would be adequate. Cases which might otherwise have been handled in the district offices were forwarded to Washington, too often without sufficient testimony for a proper decision. In defense of the district offices, however, it should be observed that frequently the practice of forwarding cases was necessary because of the inconsistent decisions of the central office. Evidence on this point again comes from *Copp's Land Owner*. In June 1885, that paper stated, "On our visit to Dakota last year, the land rulings were continually assailed with protests, profanity and ridicule. Local officers, from sheer despair, were compelled to rely on their own judgment without reference to the instructions they received, and attorneys, on a given statement of facts, never pretended to forecast a decision."[39]

The Public Lands Commission suggested a consolidation of the register and receiver offices and the payment of an adequate salary, without fees, to the new office.[40] Congress did not see fit to make this improvement in behalf of efficiency, perhaps because it would have reduced the number of political plums. Another suggestion frequently made regarding the district offices was to give registers and receivers authority to summon witnesses when they suspected fraud.[41] The need and justice of such power was obvious, but after years of delay a Senate committee

[37] *New York Times*, Mar. 11, 1881.
[38] U. S. Public Lands Commission, *Report*, p. xviii; *G. L. O. R.*, 1877:30–31.
[39] *Copp's Land Owner*, 12:65 (June 1, 1885).
[40] U. S. Public Lands Commission, *Report*, p. xviii.
[41] *G. L. O. R.*, 1877:32.

sententiously reported that the expediency and constitutionality of this authority was questioned, and so it was not provided. Witnesses usually refused to testify voluntarily since fraud was frequently backed up by violence or threat of violence.[42]

Irrespective of the need for this power some of the most notorious cases of land fraud passed through the local land offices without a hitch. The registers and the receivers appeared to be the only persons in the community who were unaware of the fraud. An outstanding example is found in the acquisition of coal lands in Colorado. In 1873 sixty-one preëmption entries were filed for about 10,000 acres of supposed agricultural land near Trinidad, Colorado.[43] All of the entries and the witnesses to them were fictitious, but the entries were allowed to be completed by the local office. It seems practically impossible that the register and receiver were ignorant of the fraud. Payment was made for the land chiefly in scrip and certificates were issued to one man, A. C. Hunt.[44] The entries were forwarded to the General Land Office for patent. At the same time, the Office received a warning from an outsider that the agricultural lands were known to cover coal and that the entrants were fictitious. The Land Office either did not consider the warning valid, had no time to investigate, or there was someone in collusion with the defrauders, for the patents were issued. Later, other officials discovered the fraud and endeavored to correct it by bringing a suit to set the patents aside. Hunt had transferred his title to others, and the land had come into the possession of the Colorado Coal and Iron Company. The suit for annulment was therefore brought against this company. The case worked its way to the Supreme Court which held in 1887 that the titles had passed to the entrants although the latter were fictitious and that, since the Colorado Company was an innocent purchaser of the titles, it was therefore permitted to keep the lands.[45] The decision pre-

[42] R. S. Yard, *Our Federal Lands*, 100 (New York, 1928).
[43] *New York Times*, Nov. 10, 1883.
[44] *Ibid.*, Nov. 27, 1887. Hunt was governor of Colorado, 1867–1869.
[45] 123 U. S. 307.

sents some interesting angles, but the most serious aspect of the case is the reflection which it casts on the integrity of the local land office officials as well as on the General Land Office.

In the absence of direct evidence it is difficult to select the primary reason for Congressional neglect of the Land Office. Undoubtedly indifference, apathy, and concern for other problems existed. Yet it seems certain that if the regions most affected had been dissatisfied there would have been protest and change. As the Public Lands Commission pointed out in 1880, it was still easy to acquire land, so actual settlers had no cause to complain. The system worked for them, but it also worked for the corporate predatory interests. In 1879 Representative Charles Foster of Ohio defended the need of improvement in the Land Office. He observed, "Why western members upon this floor have not made for years past and do not now make a point upon this matter, I cannot understand."[46] He would not have been so puzzled if he had understood the railroad, timber, cattle, mining, and surveying interests that backed some of the Senators and Representatives from California, Colorado, Kansas, and other States.

The West could protest vehemently whenever Congress attempted to repeal obnoxious laws or when administrative reforms checked wholesale fraud. For instance, Commissioner Sparks suspended entries under certain abused laws in anticipation of their speedy repeal.[47] Immediately, vocal elements of the West protested and caused Congress to adopt a resolution asking the Department by what authority the action had been taken. Not only did the West exert pressure on minor phases of land administration, but it prevented the repeal which the Commissioner had anticipated. Donaldson described a similar defeat for an earlier attempt at repeal.

Perhaps the outstanding example of the western position is found in Representative Laird's attack on Commissioner Sparks for the latter's "vendetta against the best interests of all the

[46] *Congressional Record*, 8:1175 (Feb. 10, 1879).

[47] Author's interview with Judge Samuel V. Proudfit, former Interior Department employee.

territory beyond the Missouri River." Actually the Commissioner was attempting to reform the violation of land laws and the Representative's brother had participated in high-handed and fraudulent action in acquiring land for a cattle ranch.[48]

Powerful landed groups often manifested their concern for land administration in a subtle manner. Aside from the instances noted elsewhere in this paper, there are several notorious cases which should be listed. They include the removal of special agents sent to investigate timber frauds in Humboldt County, California;[49] the dismissal of special-agent Conrad at the request of the California and Nevada Senators after he was prepared to aid in the prosecution of survey frauds;[50] the payment of sums for fraudulent surveys by the Treasury Department despite the rejection of those surveys in the Land Office where control existed;[51] and the close connection between officials and groups seeking advantages in Indian land openings.

It can be inferred that similar influences secured a drastic cut in appropriations for resurveys in districts where fraudulent or inefficient work had been performed.[52] This cut accompanied insufficient appropriations to pay the legal salaries of the Surveyors General. Economy could not have been the basis for the slash as there was a large and troublesome surplus in the Treasury.[53] Apparently it was an attempt to embarrass an honest administration and render it unpopular.

The control of Congressional appropriations was long in the hands of Samuel J. Randall, a Democrat from Philadelphia.[54] The Republican-controlled Legislature refused to gerrymander the district from his control, probably because he was a "protec-

[48] *Congressional Record*, 17:5734-5735 (June 15, 1886); *New York Times*, June 21, 1886.

[49] *G. L. O. R.*, 1886:94.

[50] New York *World*, Oct. 25, 1889.

[51] Dept. of Interior, *Annual Report* (1889)1:xxxiv.

[52] *G. L. O. R.*, 1887:94-95.

[53] J. F. Rhodes, *History of the United States from Hayes to McKinley, 1877-1896*, 8:305-306 (New York, 1919).

[54] *New York Times*, Apr. 7, 1888; *Dictionary of American Biography*, 15:350-351 (New York, 1935).

tionist" Democrat. But the Republican Party of the Keystone State was influenced by the Pennsylvania Railroad as well as protectionist industries. Some of the leading railroad men had extensive interests in western lands, particularly in Mexican grants, and it is known that Randall performed minor favors for several of these leaders. His "favors" do not imply corruption for Randall died a poor man, but it is possible that they extended to obligingly crippling the land service; the facts may be known if and when Randall's papers are made public.[55]

All of the Secretaries of the Interior and the Commissioners endeavored to improve the land service although some were more conspicuously zealous than others. Generally speaking the Secretaries tended to dominate the policies of the service. They were chiefly western men and their former connections usually included landed groups of one kind or another. The Secretaries and Commissioners were sympathetic to western or corporate interests while in office. The word sympathetic is used advisedly and does not imply corruption. Instances of collusion will be noted, however, for public-land robbery obviously was not the result of inadequate equipment alone.

President Grant selected the Radical Republican ex-Senator Zachariah Chandler of Michigan to succeed the incapable Columbus Delano of Ohio as Secretary of the Interior.[56] Taking office in October 1875, Chandler overhauled the malodorous Indian and Patent bureaus and built up the morale of the entire Department. He stopped one glaring fraud in the Land Office and conspicuously refused a bribe in a case on appeal which was given publicity at a time when charges of fraud and bribery were hanging over the Republicans in the election of 1876.[57] The party was thus aided by having its chairman of the

[55] S. J. Pomerantz, "S. J. Randall" (M. A. Thesis, Columbia University, 1932). Pomerantz found that the Randall family refuse to open Randall's papers to the public.

[56] *Dictionary of American Biography*, 3:618 (New York, 1929).

Detroit Post and Tribune, *Zachariah Chandler: An Outline Sketch of His Life and Public Services*, 340–348 (Detroit, 1880).

[57] *New York Times*, Jan. 8, 1876, Feb. 13, 1877; New York *Tribune*, Nov. 25, 1875.

national campaign committee posed as a model of rectitude. His attention to party affairs during the summer of 1876 detracted from his duties at the Department. The Commissioners who served under Chandler were Samuel S. Burdett of Missouri, whose ill-health soon forced him to resign, and General James A. Williamson of Iowa. Both made notable efforts to build up the Land Office.

Carl Schurz of Missouri had become noted as a Liberal Republican and reformer and President Hayes brought him into the Cabinet in 1877.[58] After making a number of cautious changes in the personnel of the Department,[59] Schurz devoted considerable attention to the proper method of handling public timber lands and is credited with inaugurating a movement for conservation.[60] Instrumental in securing the Public Lands Commission in 1879, he supported its recommendations, particularly those for improving administration. After leaving office, his policies regarding land-grant railroads were roundly attacked, but he was able to make a creditable defense of his actions, especially with reference to disputes between settlers and railroads.[61]

The lengthy service of Commissioner Williamson included definite efforts to improve the Office. He served as a member of the Public Lands Commission though his official duties held him in Washington and did not permit his accompanying the body on its western tour. He is credited with starting the movement for codification. On the other hand, some of his actions are open to serious question. In 1869, seven years before his appointment, he had staked out a settlement claim in Utah,[62] but, according to the Land Office, he did not fulfill the requirements necessary for patent at the time of his application and the

[58] C. M. Fuess, *Carl Schurz*, 237–251 (New York, 1932).

[59] Carl Schurz, *Reminiscences of Carl Schurz*, 3:380–381 (New York, 1908).

[60] Fuess, *Carl Schurz*, 267–268.

[61] G. W. Julian, "Railway Influence in the Land Office," *North American Review*, 136:237–256 (March 1883); Carl Schurz, *Speeches, Correspondence and Political Papers of Carl Schurz*, selected and edited by Frederic Bancroft . . ., 4:168–181 (New York, 1913).

[62] U. S. Congress, 46th, 2d sess., *Senate Executive Document 181.*

case was left open for further proof of settlement and cultivation. No further developments occurred until 1876 when he became Commissioner. During that year Acting Commissioner Baxter went over the papers connected with the case and decided that the proof formerly rejected was adequate, and a patent was issued to his superior, Commissioner Williamson. In effect the Commissioner reversed a predecessor's ruling for his own benefit.

Williamson's handling of the Maxwell Land Grant case as it passed to patent is an even darker stain on his name. This famous case warrants extended treatment as an illustration of how "great corporations" stretched "their strong and unscrupulous arms over the public lands." The grant dated from the time of Mexico's nominal control over New Mexico. It came into the hands of the famous frontiersman, Lucien B. Maxwell, who sold it to a syndicate called the Maxwell Land Grant and Railway Company, later reorganized as the Maxwell Land Grant Company.[63] Over twenty years after the United States came into the possession of New Mexico, the Maxwell Company sought patent for about 2,000,000 acres, as the amount covered by the grant. Secretary of the Interior Jacob D. Cox ruled that the company was entitled to only 97,000 acres, which was the maximum amount that could have been granted under Mexican law.[64] The company refused this restriction on its claim and waited for a change of Secretaries.

In 1871, after Columbus Delano replaced Cox, the company made a new appeal for the 2,000,000 acres. Delano, however, refused to reverse his predecessor's decision, thus denying the claim a second time.[65] Checked but not defeated, the company's lawyers sought a new basis for appeal.[66] A case involving another Mexican grant, somewhat similar to the Maxwell grant was then being prosecuted in the Colorado courts. The Maxwell Company lawyers aided in bringing this case, Tameling vs. U. S.

[63] R. E. Twitchell, *The History of the Military Occupation of the Territory of New Mexico from 1846 to 1851 by the Government of the United States . . .*, 267–269 (Denver, Colo., 1909).

[64] *G. L. O. R.*, 1885:127–129.

[65] *Ibid.*, 129.

[66] New York *Tribune*, June 30, 1885.

Freehold and Immigration Company, before the Supreme Court. Its decision was suitable as a precedent for Interior Department rulings on Mexican grants.[67] However, the lawyers of the company did not make a new appeal to the Department for the Maxwell grant. Instead the initiative was taken by Commissioner Williamson when he wrote to the Secretary calling attention to the Supreme Court ruling in the Tameling case. Noting that it appeared to conflict with the Departmental decision in the Maxwell case, the Commissioner asked for instructions in deciding future cases. Secretary Schurz replied that "hereafter" the principles of the Court should be followed,[68] and the Commissioner appears to have used this letter of general authority for the future in re-opening the Maxwell case and ordered a survey of most of the land which the Company had claimed. This survey covered over 1,700,000 acres of rich coal, gold, timber, and pasture lands. After it had been returned to the Land Office the Commissioner further compromised himself by replying to inquiries with the statement that the returns had not yet been received.[69]

The Land Office found that the survey contained several discrepancies when checked with the records of the Office. The Commissioner prepared a letter to the Surveyor General of New Mexico, pointing out the errors and demanding their correction. This letter was not sent, however. On its margin is a note saying that the Commissioner had decided to issue patent,[70] and thus, after years of litigation and effort, the Maxwell Company succeeded in acquiring the land it claimed. The rôle played by Williamson in the case appears rather dubious. What prompted him to re-open the case which a Secretary had refused to consider, why did he prevaricate over the returns of the survey, and what caused him to ignore his duties regarding correct surveys in his haste to issue patent, are questions that remain

[67] 93 U. S. 644.

[68] *G. L. O. R.*, 1885:130.

[69] Transcript of Record, U. S. Supreme Court, October term, 1886, vol. 27, no. 974.

[70] General Land Office files under "Maxwell Private Land Claim."

unanswered. His actions indicate undue influence from, or improper connection with, the Maxwell Company.

In 1880, the year following the issuance of the Maxwell patent, Williamson visited New Mexico. A signed newspaper report of the time stated that the Commissioner had a large interest in land grants of the Territory, and his visit was said to be for the purpose of looking "after his shares."[71] The report continued: "It is now, and was while he was here, openly alleged that he became interested so largely for pushing through, completing and issuing patents to many of the grants." This statement must be taken for what it is worth; it does not refer directly to the Maxwell Grant nor is it proof of corruption, but it adds further doubt to suspicious evidence. The Maxwell case gained notoriety at a later date when the Government brought suit to set the patent aside on the ground that Secretary Cox's decision had rightly interpreted the law. The Supreme Court upheld the validity of the patent though it recognized that there had been dubious transactions connected with it.[72] When Williamson left office he became connected with a southwestern railroad, the Atlantic and Pacific, and he was later made its president.

Secretary Schurz was succeeded by the former railway president and Civil War governor of Iowa, Samuel J. Kirkwood. Upon President Garfield's death, Kirkwood resigned, though he remained in office until April 1882. His term was brief and "was not marked by any notable constructive activity."[73] President Arthur appointed the reluctant Henry M. Teller, Senator from Colorado, to succeed Kirkwood.[74] Senator Teller had been interested in western cattle companies and had also been a lawyer for the western railroads of Jay Gould.[75] These interests influenced his actions while Secretary. He leased Indian lands at low rates to cattlemen, contrary to treaty rights.[76] His ruling interpreting a railroad right of way as

[71] New Orleans *Times*, Oct. 9, 1881 (Columbia University Clipping Bureau).
[72] 121 U. S. 325.
[73] D. E. Clark, *Samuel Jordan Kirkwood*, 363 (Iowa City, Ia., 1917).
[74] *New York Times*, Apr. 7, 1882.
[75] *Ibid.*, Mar. 29, 1882, quoting the Denver (Colo.) *Tribune*, Mar. 24, 1882.
[76] G. F. Howe, *Chester A. Arthur*, 212–213 (New York, 1934).

anywhere within fifty miles of the line was preposterous. It was a legal dodge to allow the railroads enormous timber resources. His efforts to rush the questionable "Backbone" railroad patents through the Land Office at the eleventh hour were highly suspicious. Jay Gould had an interest in the "Backbone" grant and the Secretary worked the Office staff evenings and Sunday in order to have the patents completed before President Arthur's administration expired.[77]

Since the policies of the Secretary dominated the Land Office, his Commissioner, Noah C. McFarland of Kansas, was chiefly concerned with the onerous duties imposed by an increasing amount of land absorption. The accompanying fraud in this absorption became so serious that the Office secured the aid of the President in submitting a special message to Congress.[78] The Department requested either the repeal of the more abused settlement laws or additional assistance in its effort to protect the public domain. The Commissioner asserted that "This office has never been furnished with facilities or means to secure a compliance with the requirements of the public land laws." Congress responded to the request by providing special agents to investigate cases of alleged irregularity, but it did not repeal or revise the land laws which were so grossly violated. The special agents could not effectually stop the rampant fraud on the public domain because of inadequate numbers, vastness of territory to be covered, lack of reform in the land system itself, temptations of bribery, and removal for thwarting powerful interests.

When President Cleveland led the Democratic party into power in 1885 he selected ex-Senator Lucius Q. C. Lamar of Mississippi as Secretary of the Interior. As a member of a reform administration, Lamar labored to improve the land service as shown by his lengthy annual reports and his support of Commissioner William Sparks of Illinois. Lamar dismissed some

[77] *Congressional Record*, 17:7–13 (Mar. 9, 1885); U. S. Congress, 48th, 1st sess., *Senate Executive Document 31* (Washington, 1884).

[78] U. S. Congress, 47th, 2d sess., *Senate Executive Document 61* (Washington, 1883).

office workers to make way for deserving Democrats, though removal was by no means wholesale.[79] His easy-going nature permitted the zealous Commissioner to take the initiative in many land reforms but he could be firm when necessary and he did curb unwise action. After serving for three years Lamar was promoted to the Supreme Court. Before leaving he forced a quarrel with his Commissioner which brought about the latter's resignation.[80] This step was at the instigation of the incoming Secretary, William F. Vilas of Wisconsin, who disliked Sparks.[81] The disputed question involved an interpretation of railroad-land indemnity wherein the Secretary had been more favorable to the roads than the Commissioner.[82]

During his three years in office Commissioner Sparks established a record practically unique in Land Office history. He attempted with considerable vigor to improve the methods, practices, and conditions of the Office, and he made it, for practical purposes, an almost independent department. At times he blundered, but there is no question of his honesty. His reports are a mine of information on reprehensible land practices. He worked with the hope that he could secure Congressional assistance, but Congress only confronted him with additional handicaps.

Among Sparks's constructive efforts is the famous April 3, 1885 order suspending final action on patents in certain classes of cases.[83] He intended to secure a check-up in regions where fraud was most glaring. The order was followed by the creation of a special board of review to pass on all cases going to patent.[84] Commissioner McFarland had declared in 1883 that the Office had "been compelled for years past to treat doubtful claims as valid, and to pass over to claimants the title of the United States because it could not investigate the facts."[85] The board

[79] Edward Mayes, *Lucius Q. C. Lamar*, 469–505 (Nashville, Tenn., 1896).
[80] New York *Tribune*, Nov. 12, 1887; *New York Times*, Nov. 16, 1887.
[81] Judge Proudfit interview, and *New York Times*, Nov. 13, 1887.
[82] *G. L. O. R.*, 1887:303–315.
[83] *Ibid.*, 1886:43.
[84] *Ibid.*, 49.
[85] U. S. Congress, 47th, 2d sess., *Senate Executive Document 61*, p. 5.

was to make careful investigation in doubtful cases, and despite charges to the contrary, it did not slow down the machinery for issuing patents.

President Cleveland probably hoped that Secretary Vilas would be able to establish the same efficiency in the Interior Department that he had created for the Post Office Department.[86] However, after Vilas assumed the office in 1887, he found that there were handicaps to proper reorganization inherent in the system because of Congressional neglect. His remarks on the condition of the Office have already been quoted. It should be noted that Vilas was not a "squeamish" reformer, unmindful of the "needs" of the West. When he took office newspapers referred to his former connection with groups interested in Government timber lands, and one paper suggested that his opposition to Commissioner Sparks had developed from the latter's suspicions regarding the timber-land entries of the Secretary's brother.[87] The fact, therefore, that the Secretary had been interested in timber lands and had served land-grant companies lends weight to his requests for an improved service. He must have had businesslike procedure rather than nebulous reform in mind when he sought Congressional cooperation.

Denied the assistance desired, Vilas made a number of administrative changes to speed up the work of the Land Office, though several of them were at the expense of proper protection of Government land. He took personal charge of land decisions from his assistant and liberalized the rules of procedure in the Office so that 3,633 patents were issued within a week, one-third as many as the number for the previous three and one-half months.[88]

The Commissioner who served under Vilas was S. M. Stockslager of Indiana, a boyhood friend of his predecessor, Sparks. Stockslager sent letters to Government land-agents and officers asking them if they had noted any improvement in the land service over former years.[89] His purpose was to secure the reac-

[86] *National Cyclopaedia of American Biography*, 2:409–410 (New York, 1921).
[87] *New York Times*, Dec. 7, 9, 1887.
[88] Washington *Critic*, Jan. 20, 23, 1888.
[89] *G. L. O. R.*, 1888:56.

tion of the field force to the efforts of the former Commissioner. Forty-six of the fifty-seven replies noted "marked improvement." If there had been advancement under the former administration there was evidence that the service was already losing its gains. *Copp's Land Owner* issued a warning that the Department should take "no steps backward. The improvements and reforms of the last two years should not be lightly set aside."[90] The warning was ignored, however, and greater laxity followed under President Harrison.

John W. Noble of Missouri, who succeeded the short term of Vilas, had formerly served as United States District Attorney in St. Louis until his resignation in 1870 for private practice. Some of his principal clients were the large corporate and railroad interests of the Southwest. Noble had also invested in mining operations so that he was acquainted with some of the major economic activities of the West.[91] Like his predecessor he tended to dominate the policies of the Land Office. He surpassed Vilas in "liberalizing" the rules of the Office in an effort to clear up the arrears of work. He particularly speeded up timber cases that had been waiting inspection. They were ground out at the rate of five hundred a day, making careful inspection impossible, but the Office was thus able to dispose of the seventeen to eighteen thousand cases pending before the board of review.[92] If Noble was guilty of practically throwing away the public domain to dishonest entrymen for transfer to corporations he was equally guilty of the inexcusable discharge of special agent Conrad on the grounds that he was "too suspicious."[93] On the other hand Secretary Noble gave valuable assistance to the efforts to preserve timber land. His sympathetic cooperation with the men of the American Forestry Association made possible the Twenty-fourth Section of the Forest Reserve Act of 1891. By this section the President of the United States was authorized to establish forest reserves by proclamation. It was one of the bright spots in land legislation

[90] *Copp's Land Owner*, 14:221 (Jan. 1, 1888).
[91] *Dictionary of American Biography*, 13:539–540 (New York, 1934).
[92] *Ibid.*; *G. L. O. R.*, 1889:8.
[93] New York *World*, Oct. 25, 1889.

during the latter part of the nineteenth century, though its adoption was almost accidental.[94]

Lewis A. Groff of Nebraska served as Commissioner under Secretary Noble until ill-health brought his resignation in favor of Thomas A. Carter of Montana.[95] Groff is noted for the partisanship shown in his annual reports. He attempted to discredit the efforts of Commissioner Sparks and to point with pride to the Republican Homestead Act.[96] In attempting to discredit the Democrats he had to minimize the fraud which both Republicans and Democrats had exposed.

While Congress passed the Land Act of 1891 to remove some of the more grossly abused laws, it failed to improve the means of administration. Rigorous control had to await the conservation movement. Canada had adopted a comprehensive plan of administration in 1879, but the Americans had allowed their opportunity of 1880 to slip quietly away. New issues of a dynamic industrialism and frenzied finance came to demand public attention. The American frontier lines were disappearing and with them the possibility of establishing a department of public lands.

Undoubtedly the creation of such a department would have checked many of the unfortunate developments. Its supervision would have brought centralization under an official who could devote full time to land needs; equipment and personnel would have been improved; and there would have been greater publicity on policies. During the 1870's labor groups had demanded the establishment of such a department,[97] and in the next decade a Senate committee, after examining the the decrepit condition of the Land Office, was forced to the conclusion that the need for it was "so patent that it needs no discussion."[98] Perhaps the committee failed to recognize that Congress seldom acts without discussion, but in any case constructive

[94] John Ise, *United States Forest Policy*, 115-118 (New Haven, 1924).
[95] *New York Times*, Mar. 16, 1891.
[96] *G. L. O. R.*, 1889.
[97] D. S. Muzzey, *United States of America*, 2:96 (Boston, 1933).
[98] U. S. Congress, 47th, 1st sess., *Senate Report 362*, p. viii.

action in behalf of the land service was singularly lacking throughout the period.

It is perhaps important to recall that the principle of *laissez faire*, implying a hands-off policy on the part of the Government in the economic activities of its citizens, was not abridged until the passage of the Interstate Commerce Act of 1887. Yet there is nothing in that theory which emphasizes the necessity for fraud. The unwarranted connections of economically minded citizens with the Government in land administration made *laissez faire* impossible. They also left problems, economic, political, and social, which continue to plague the Nation. Judge Davis's indictment, illustrated from the record, describes a development of which no honest citizen can be proud. The public lands were absorbed and concentrated in far larger quantities than the laws intended because greedy interests could work through the amenable and inadequate General Land Office.

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THE DESERT LAND ACT IN OPERATION, 1877–1891

With the passage of the Desert Land Act in 1877, serious misgivings at once arose as to its advisability. In his report for the same year, the Commissioner of Public Lands recommended its repeal and the substitution of a law which would give the arid lands to individuals or corporations for reclamation on the same principle as that applied to other lands.[1] The Secretary of the Interior protested against entry on land before its character was determined and suggested that a commission be formed to study the situation.[2] In response, Congress provided on March 3, 1879 for a commission of three persons in addition to the Commissioner of the General Land Office and the Director of the Geological Survey to codify all laws relating to the disposition of the public domain and to classify the land by types. The commission was also expected to present a system for land surveys and to make recommendations as to the best method of distributing western land to actual settlers.[3] The commission's report in 1881 was probably the most extensive survey of the public lands made up to that time.[4]

Although the report revealed little concerning the operation of the Desert Land Act as a national policy, it soon became evident to the Commissioner of Public Lands and to the Secretary of the Interior that the law was being used primarily to gain control of water. The entries were for long narrow tracts along the banks of streams,[5] and if 640 acres could be located in this manner the entrant had a great advantage in irrigating his land.

[1] U. S. General Land Office, *Annual Report of the Commissioner*, 1877:34. Hereafter cited as *G. L. O. R.*

[2] U. S. Department of the Interior, *Annual Report*, 1877:xxii.

[3] *Ibid.* (1879–80), 1:31.

[4] T. C. Donaldson, *The Public Domain* (Washington, 1881). This report was issued as U. S. 47th Congress, 2 sess., *House Miscellaneous Document* 45, part 4 [serial no. 2158].

[5] *G. L. O. R.*, 1880:85–89.

The Commissioner of the General Land Office, J. A. Williamson, considered this procedure a violation of the provision of the act which stated that the land was to be taken in compact form. This, he interpreted as meaning not merely contiguous but a surveyed section or its legal subdivisions and, for unsurveyed land, a form as near that of the legal units as the situation of the land permitted.[6]

Moreover, the Commissioner of Public Lands soon came to the conclusion that the entire national land system was being undermined by fraud. In response to his request, Congress provided for an investigation of fraudulent entries under the various land acts.[7] This authorization was approved on March 3, 1883, and by April 1, the investigators were in the field gathering evidence.[8] The General Land Office had opposed the Desert Land Act from its inauguration and now urged more strongly than ever that the theory on which the law was based was fallacious.[9] The investigators revealed that final proof, supposed to be submitted within three years, never occurred in a large proportion of the entries. Furthermore, no attempt was being made to irrigate the land as it was being taken for stock raising and as a means of controlling the ranges.[10]

The reports of the investigators were startling. W. H. Goucher, the special agent working in California, estimated that only 5 percent of the entries were made in good faith and that 90 percent of those in his district had been made between 1883 and 1885.[11] The land office at Tucson, Arizona, reported that the stockmen were monopolizing the land and stated that "One of the methods whereby large cattle owners acquire title to land enough to control all the water in a large district is the placing of their employés here and there at the different waters and

[6] *Ibid.*, 88.

[7] U. S. Laws, Statutes, etc., *The Statutes at Large of the United States of America . . .* (1883) 22:623.

[8] *G. L. O. R.*, 1883:206.

[9] *Ibid.*, 8.

[10] *Ibid.*, 1884:8.

[11] *Ibid.*, 1885:59. The report was dated Nov. 17, 1884.

acquiring title through them."[12] Charges against the cattlemen were made with monotonous frequency.

The Secretary of the Interior begged Congress to act. The land was being patented by the livestock interests in such a way as to gain control of thousands of acres. Odd sections were purchased either from the Government or the railroads and fenced in a manner that enclosed the intervening land although it was not owned by the cattlemen.[13]

The governors of the territories did not agree with the complaints of the Commissioner of Public Lands and the Secretary of the Interior. The Governor of Idaho Territory asserted:[14]

> In a few years an acreage greater than the whole State of Rhode Island will be reclaimed in the Snake River Valley alone, and changed from an arid, parched, and unsightly desert into rich and blooming agricultural lands, safe from drought or floods of rain. This happy condition is entirely attributable to the desert-land act, which should not be, and I beg to express a hope, will not be, changed.

The Governor of Montana Territory estimated that not over 5 percent of the entries were fraudulent and complained bitterly against the suspension of entries pending investigation, claiming that it was working "untold hardship" on the settlers.[15]

Until 1885, nearly all of the charges made by the Public Land Commissioner and the Secretary of the Interior were directed against the cattlemen. In attempting to formulate a reclamation policy for the arid lands, Congress had not considered their use for grazing purposes. The representatives from the Eastern States who dominated Congress expected the lands to be transmuted into a rich agricultural region like that of the Ohio and Mississippi valleys. Westerners were fully aware of what was taking place, and moreover, if the cattlemen seized the lands, it was not entirely without invitation. The Governor of Wyoming Territory gloried in the growth of the cattle industry and frankly advertised the ways to obtain large quantities of land under the various acts. In his annual report, he stated:[16]

[12] *Ibid.*

[13] Department of the Interior, *Annual Report* (1887) 1:15, 19.

[14] Idaho (Ter.) Governor, *Report . . .*, 1884:8, 9.

[15] "Report of the Governor of Montana," in Department of the Interior, *Annual Report* (1886) 2:834.

[16] Wyoming (Ter.) Governor, *Report*, 1883:27–28.

The greatest source of encouragement to men of moderate means desiring to engage in cattle-raising in Wyoming arises from that feature of the policy of the United States Government by which it encourages its citizens to acquire title to the public lands. In Wyoming, by fulfilling the requirements of the land laws, a male citizen may take up the following number of acres:

	Acres
Under the homestead act	160
Under the pre-emption act	160
Under the timber-culture act	160
Under the desert-land act	640
Total	1,120

By the first three acts land may be taken up in 40-acre tracts, and under the desert-land act a tract a mile and a quarter long and three-quarters of a mile wide may be filed upon.

A married couple, the wife being able to enter 640 acres under the desert land act, can get possession of 1,760 acres, sufficient to support several hundred of cattle. If, say, three men having means sufficient to make the payments at the land office necessary when filing upon lands under the four acts referred to, join their entries along a stream of water, they will have grazing land enough for at least a thousand head of cattle. They will be put to the expense of erecting fences around their lands and sheds to protect their herd against violent storms, but that done, their business will, it is thought, be put upon as safe a basis as is cattle-raising in Iowa.

To this governor, the activities of the stockmen were justified. In his opinion, the land of the Government was not worth $1.25 an acre, and since the stockmen had the water rights they might as well run their fences back to the divides as no other settlers would want the land along the watersheds.[17] He also believed that the land laws did not allow enough leeway for action and claimed that the investigations by the Interior Department worked gross unfairness against the honest man who told what he had actually done and exempted the perjurer who claimed fictitious improvements.[18]

The Governor of Utah did not deny that there was fraud but held that the entire national land system, except for the homestead and preemption acts, was an invitation to fraudulence.[19]

[17] *Ibid.*, 48–52.

[18] "Report of the Governor of Wyoming," in Department of the Interior, *Annual Report* (1885), 2:1202–1207.

[19] "Report of the Governor of Utah," in Department of the Interior, *Annual Report* (1885) 2:1029

He blamed the Department of the Interior for the troubles, asserting that because[20]

> the Department [was] holding so strictly to the requirements under the desert-land act stockmen, in their own interests, have entered lands about the springs and streams for the purpose of watering stock. The waters are so scarce in the Territory that a company of four or five men engaged in stock business can enter the same number of springs and streams, paying the Government for not more than a section or two of land, and virtually get the use of thousands of acres that cannot be settled or entered under any of the present land laws.

The only dissenting voice from the territorial governors was that of Governor Edmund G. Ross of New Mexico. He believed that land was being taken by fraud and possibly with the connivance of officials, and he saw no reason for changing the laws to aid the grazing interests because, as he put it, people rather than "dumb brutes" should inhabit the land.[21] To him the problem was a conflict between two civilizations, the nomad and semi-barbarian against the granger, and he insisted that the cattle industry should be curtailed in the interest of the latter.[22]

The statistics show a marked decrease in the number of entries under the Desert Land Act by 1887, and the Secretary of the Interior virtuously declared that the reduction was due to new methods used by the General Land Office.[23] Probably the explanation is that the cattle industry had reached its maximum development by the middle eighties. Great losses had resulted from overstocking the ranges and the severe winters, and the profits of the industry showed a marked decrease beginning in 1885.[24] This situation naturally affected the number of desert-land entries.

A new epoch in the operation of the Desert Land Act began with the decline of the cattle industry. In 1882, there were no irrigation works built on sound engineering principles, but

[20] *Ibid.*

[21] "Report of the Governor of New Mexico," in *ibid.*, 1008–1010.

[22] *Ibid.* (1887) 1:874–875.

[23] See *G. L. O. R.*, and Department of the Interior, *Annual Report* (1887) 1:6.

[24] "The Range Cattle Traffic," *House Executive Document 267*, U. S. Congress, 48th, 2 sess., serial no. 304; U. S. Congress, 51st., 1st sess., *Senate Report 829*, serial no. 2705.

by 1888, investors were turning from ranching to the rapidly developing irrigation companies.[25] In Wyoming, companies were being incorporated at the rate of one or two per year, usually, however, with a capital of less than $100,000. In 1882, eleven were incorporated; in 1883, nine, including one which was capitalized at $300,000 and another at $1,000,000; in 1884, nineteen; and in 1885, thirty-six.[26]

In 1887 Arizona had at least 400 miles of irrigation canals that cost over a million dollars, and had reclaimed over 200,000 acres. This work had been done by stock companies, controlled by landowners who had obtained land under the Desert Land Act.[27] In California the growth of irrigation and the number of desert-land entries were equally rapid.

The development of irrigation in the intermontane region was no less meteoric. In Idaho, even by 1884, the Governor pointed with pride to the achievements in reclamation.[28]

> Near Blackfoot a canal is nearly finished that will reclaim between 40,000 and 50,000 acres. In Cassia County—along the south side of the Snake River—Raft River, Goose Creek, and many smaller streams are owned entirely by the Mormons and used by them for irrigation purposes.
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> At Shoshone, in Alturas County, 25 miles north of Snake River, Little Wood River has been turned on the desert and a thriving town with its outlying farms has grown and is growing, where but two short years ago was a sage-brush covered, desert plain.
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> In the Bruneau Valley some 60,000 acres are already under cultivation and a canal has been started to cover from 25,000 to 30,000 acres more. In Wood River Valley a canal has been constructed and irrigates over 20,000 acres, while below these now fruitful acres lie 50,000 acres which will shortly be covered with water and cultivated.
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> The Idaho Mining and Irrigation Company of New York is constructing a canal with a capacity of 4,000 cubic feet of water per second, which takes the waters of the Boise about 75 miles above its confluence with the Snake River. This canal will irrigate and reclaim about 600,000 acres of land lying on the north side of the Snake River and south of Boise City.

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[25] U. S. Geological Survey, *Annual Report* (1891–92) 13 (3):115 (Washington, 1893). Hereafter cited as *G. S. A. R.*

[26] "Annual Report of the Governor of Wyoming," in Department of the Interior, *Annual Report* (1885) 2:1191–1193.

[27] "Report of the Governor of Arizona," in *ibid* (1887) 1:754–756.

[28] Idaho (Ter.) Governor, *Report*, 1884:8–9.

> On the Payette River two canals are nearly completed that will cover about 50,000 acres, while a third is contemplated that will reclaim 30,000 acres more.
>
> On the Weiser there are about 75,000 acres being brought under irrigating ditches, there being three or four different canals now building. In addition to the above a plan is maturing to take the waters of the Snake River and reclaim nearly 2,000,000 of acres of valley land. This, if carried into effect, will give Idaho land enough to supply the entire Pacific slope with cereals, fruits, and vegetables, and make her the richest of the Territories.

In 1890, the Governor reported that almost all irrigation was being carried on by corporate development and that most of the land was being taken under the minimum provision of the Desert Land Act.[29] The Governor of Utah stated in 1885 that the increase in the number of desert and timber-culture entries was due to the building of canals for reclamation purposes.[30] In New Mexico some owners were beginning to cultivate grasses, and the progress in irrigation by private enterprise and the incorporation of over thirty companies for that purpose was reported.[31]

The development of irrigation was so rapid that the Director of the Geological Survey expressed fear concerning its future possibilities, since, in order to utilize the water supply to the fullest extent, it would be necessary to buy out vested interests amounting to several hundred million dollars. When asked by the Congressional committee on irrigation for an explanation of the rapid growth, he replied that it was obviously because of the lucrative increment. Scarcely a week passed, he declared, without domestic and foreign companies asking for information and offering capital for investment.[32]

To the Public Land Commissioner this trend became the new crux of the land problem. Whereas the reports of the investigators had once complained against the cattle companies, they now turned to the speculators and the land and ditch companies. In Wyoming, seventy-eight desert-land entries comprising some 48,000 acres were transferred immediately after proof to a land

[29] "Report of the Governor of Idaho," in Department of the Interior, *Annual Report* (1890) 3:564–568.

[30] "Report of the Governor of Utah," in *ibid.* (1885) 2:1029.

[31] "Report of the Governor of New Mexico," in *ibid.* (1888) 3:843–844; (1890) 3:458–459.

[32] *G. S. A. R.* (1889–90) 11 (2):233–234 (Washington, 1891).

and ditch company, previously organized for the expressed purpose of acquiring these lands. Most of the entrymen lived in eastern States and had never seen the land. Even the purchase money was supplied by the company.[33] The reports from other districts tended to confirm the inference. The Surveyor General of Arizona reported that "Speculators of all degrees have now turned their attention to the facilities offered by the desert-land law, and 'the woods are full of them'."[34] In the same Territory, non-residents entered 113,178 of the 199,026 acres between July 1, 1885 and June 1, 1887.[35]

The Census of 1890 indicates in a measure the growth of irrigation during the latter part of the eighties. There were then 3,631,381 acres under irrigation by 54,136 irrigators, but this development cannot be attributed entirely to the Desert Land Act. Colorado, which was not included in the original act, had more than one-sixth of the total number of irrigators and nearly one-fourth of the improved acreage. In terms of States, it stood third in the number of irrigators and first in the proportion of total area irrigated.[36] Moreover, there had been considerable irrigation in California and Utah prior to the passage of the act, and it is reasonable to suppose that it would have continued to increase there. In addition, the homestead entries of the eighties were greater than the number of desert-land entries in the regions covered by the Desert Land Act. Only in Montana and Wyoming, and in some years in Arizona, Nevada, and Idaho, did the desert-land entries exceed those for homesteads.

Reclamation, however, involved the utilization of water as well as land, and analysis of the operation of the Desert Land Act in relation to the various methods of irrigation indicates its influence on water rights. If a farmer made a bona-fide entry for irrigation rather than cattle raising, he had four possible ways of

[33] *G. L. O. R.*, 1888:49.
[34] *Ibid.*, 1887:522.
[35] *Ibid.*, 523.
[36] U. S. Census Office, 11th Census, 1890, *Report on Agriculture by Irrigation in the Western Part of the United States at the Eleventh Census: 1890*, by F. H. Newell, special agent, 1–2 (Washington, 1894).

reclaiming the land: build ditches and appropriate water and manage the project by individual effort; affiliate with others to form a cooperative enterprise in which the stock was held by the landowners themselves; join a large group to form an irrigation district which, with the permission of the State, assumed quasi-governmental powers and issued bonds for the construction of projects based on the tax levy of the district; or, finally, purchase water from an irrigation canal company at a fixed rate.

Reclamation by individual effort was most unsatisfactory from the standpoint of conservation. The Desert Land Act was designed to dispose of arid lands to actual settlers, and it looked primarily to the utilization of perennial streams which could be easily diverted. Under the act as it remained until 1891, this was about all that could be done. In most of the arid regions the water supply was quite limited, and since the act recognized the doctrine of appropriation two important problems arose.[37] The appropriator took the land along streams where water could be diverted most easily and cheaply. As a result the water was invariably used first on the land at the lowest level. With the streams thus utilized it was impossible to irrigate the uplands without buying out the vested interests which had accrued below. Thus, the efficient utilization of water from the standpoint of its maximum beneficial use was thwarted.[38]

The other result was the curtailment of future development due to the early appropriation of easy-access streams. Although the doctrine of appropriation was applied to the public domain, title to water did not go with the land. When the land was owned by private individuals, the water rights came from the States. The resulting diversity of laws relating to water generated problems of equity that baffled the courts. The separate control of land and water tended to create water monopolies with the landowners dependent on the owners of the streams.[39]

[37] " . . . the right to the use of water by the person so conducting the same, on or to any tract of desert land of six hundred and forty acres shall depend upon bona fide prior appropriation."—Desert Land Act, sect. 1.

[38] *G. S. A. R.* (1889-90) 11 (2):233-236.

[39] Elwood Mead, *Irrigation Institutions*, 22, 23 (New York, 1903).

President Harrison, in his third annual message, urged Congress to adopt protective measures on the basis of its control over water rights in the Territories.[40]

The percentage of irrigation projects carried out as partnership and cooperative enterprises is not known. Almost all of the canals in Utah were built by cooperative effort. The farmers usually formed clubs to furnish both the money and labor and then divided the stock accordingly.[41] In California irrigation was begun by individual enterprise, chiefly by the holders of large estates. The Crocker-Huffman and Galloway canals cost more than a million dollars each.[42] Later, when the canal companies became involved in extensive litigation, reclamation was undertaken through irrigation districts in accordance with the district irrigation law of 1887. Idaho followed Utah closely in its method of development, whereas Wyoming depended largely on individual effort and land and irrigation companies. This diversity makes it impossible to tell with certainty the amount of irrigation promoted by the various methods of reclamation.

Strictly speaking, the Desert Land Act made no provision for relcamation except by individual effort, and it was on the basis of this assumption that Congress had designated 640-acre units. This amount was assumed to be sufficient, but irrigation farming needed more than land and water; it required capital,—often more than the individual settler could command. Since the act merely required that the land be irrigated in order to prove title and did not specify the amount, the farmer could adopt any method so long as his land was under irrigation at the end of the three-year period. Under the Desert Land Act entrymen could join together to build projects and irrigate their land and receive title from the Government. The persons forming this type of company, however, were of limited means. Capital, except in the form of labor, was extremely limited and consequently

[40] U. S. President, *Compilation of the Messages and Papers of the Presidents, 1789–1897* . . . by James D. Richardson, 9:205 (Washington, 1898).

[41] Mead, *Irrigation Institutions*, 233–237.

[42] *Ibid.*, 186.

these small partnership and cooperative concerns followed the practice of individual irrigators and built comparatively small ditches and irrigated only the low lands. The Mormons in Utah found the cooperative system well adapted to their needs, but as related to the efficient utilization of land and conservation of water, it proved little better than individual action.

The relationship between the Desert Land Act and the district plan of irrigation involved the organization of a community to issue bonds with which to build ditches. The security of the bonds would be the tax issues on the district, but back of the tax was a lien on the land. As title to the land resided in the Government until final proof and it could not be made until water was actually delivered, no lien could be placed until after irrigation. Consequently this method of raising money to build projects was eliminated.

In spite of the hardships involved in promoting irrigation, many believed that it, like the railroads, would create vast fortunes. The boom was based on this hope, and it was only through bitter experience that irrigation companies learned that the land law, passed by the Government to aid the development of irrigation, did not operate in their favor. Concerning its actions, Elwood Mead, who was perhaps more familiar with the irrigation problem of the West than any other man, stated:[43]

> When the Bear River Canal was begun in Utah, the land it was to water was an unoccupied sage-brush desert. Before its survey was completed, and in less than thirty days after it was begun, every acre of land had been filed upon. Three years later not one acre in fifty was being irrigated by the original entry men. Before the survey of the canal of the Wyoming Development Company was completed, six sections of the best land below it had been filed on by speculators. To protect itself, the company had to organize a syndicate to file on the land under the Desert Act.

It was evident, then, by about 1890, that remedial legislation was necessary, but it was difficult to know what action should be taken. The attempt to reclaim by means of a land law which gave no consideration to the water problem had worked havoc.

[43] *Ibid.*, 20.

In the meantime a movement to repeal the entire desert-land policy had developed. Beginning with the criticism of the Commissioner of Public Lands in 1877, the Desert Land Act was the object of intermittent attacks from numerous sources. Colorado was not included under the act until 1891, although, as has been noted, it was one of the major States in the development of irrigation. The Colorado representatives tried continually to have the act modified. In the first session of the Forty-seventh Congress, they brought forward a bill to settle the question of arid lands in Colorado by leasing them in 5,000-acre tracts for ten-year periods at four cents an acre.[44] The majority of the Committee on Public Lands reported favorably as it was believed that the bill was designed to allow capital to utilize the land and would at the same time guard proprietary rights. The majority also held that the existing laws of other States and Territories would be unsuitable for this land.[45] The minority felt that leasing the land in this manner would, in essence, make the Government a landlord similar to Old World sovereigns and that the bill was a step backward toward feudalism. It recommended that the Government sell in larger plots but not lease.[46] Because of this divergence of opinion the bill failed to pass.

The second source of agitation against the act came from the arid region itself and consisted mainly of attempts to relieve settlers under the Desert Land Act. Several bills were brought forward, one to amend the fees on the ground that the minimum paid for other lands in the United States was too much for desert lands;[47] and another, which is interesting in the light of the investigations made by the Interior Department, to authorize the assignee to make final proof of the reclamation of his land.[48] A number of bills sought to amend the act by extending the

[44] *Congressional Record*, 13:417, 840, 989 (Jan. 16, Feb. 2, 8, 1882). H. R. 2829, providing for the leasing of land in Colorado, was introduced, but the Committee on Public Lands reported H.R. 3857 as a substitute.

[45] U. S. Congress, 47th, 1st sess., *House Report 197* (Washington, 1882).

[46] *Ibid.*

[47] *Congressional Record*, 10:3707 (May 24, 1880).

[48] *Ibid.*, 1774 (Mar. 22, 1880).

time for making proof and payment, and others provided for incorporation of irrigation companies.[49]

A memorial, drawn by the Nevada Legislature in February 1883 and presented to Congress the following December, asked that desert entries, if not proved after the three-year period as provided by the act, be cancelled. The Legislature believed that the land would be entered under other land acts if this were done.[50] In the Forty-ninth Congress, bills were again brought forward to repeal the act as the investigations of land fraud were well under way. Nevertheless, the resulting Senate report held that the law should not be repealed but modified to prevent the existing abuses. Congress, however, merely postponed action,[51] and during the next few years bills for repeal were immediately laid on the table.

Meanwhile, the Commissioner of Public Lands and the Secretary of the Interior continued to plead for repeal. On February 13, 1888, a Senate Resolution asked the Secretary of the Interior whether he considered it advisable to have the Geological Survey segregate the land and lay out sites for reservoirs. Soon thereafter an act was passed providing for the survey of arid lands and investigation of reservoir sites.[52]

This act, apparently innocent enough in its intent, created a great furor. The plans of a Utah corporation to utilize the waters of Bear Lake and Bear River affected Idaho, and when the Idaho convention met to draw up a constitution, resolutions of protest were passed and the Utah company was forced to appeal to the Secretary of the Interior for protection. The

[49] These bills particularly emanated from the California representatives in 1882 during the first session of the Forty-seventh Congress. See *Congressional Record*, 11:1307 (Feb. 7, 1881); 13:275, 417, 1304, 3925 (Jan. 9, 16, Feb. 20, May 15, 1882); 15:154, 1177 (Dec. 18, 1883, Feb. 18, 1884).

[50] *Ibid.*, 15:199 (Dec. 20, 1883).

[51] These modifications provided: 1, Restriction of the amount purchased to 320 acres; 2, Sale only to citizens of the U. S.; 3, The requirement of a five-year residence period; 4, A provision against alienation of land; 5, At least one-half of the land to be reclaimed in five years. U. S. Congress, 49th, 1st sess., *Senate Report 69* (Washington, 1886); *Congressional Record*, 17:6266 (June 29, 1886).

[52] Texts of the various resolutions, letters, etc. relating to this act are conveniently found in *G.S.A.R.* (1888-89) 10 (2):1-17 (Washington, 1890).

Secretary replied that speculators could not take the land by the terms of the act and the Commissioner of Public Lands was instructed on August 5, 1889, to " 'immediately cancel all filings made since October 2, 1888, on such sites for reservoirs, ditches, or canals for irrigating purposes . . . and . . . hereafter receive no filings upon any such lands'. "[53] When the question was referred to the Attorney General, he ruled that the act reserved the land from settlement. "Entries," he said, "should not be permitted, therefore, upon any part of the arid regions which might possibly come within the operation of this act."[54]

For all intents and purposes, this interpretation meant that the arid lands could not be reclaimed. Coming just at the time when the irrigation boom was at its peak, it caused a protest to the Congressional Committee on Irrigation and Reclamation of Arid Lands.[55] Obviously the law as interpreted was working against the welfare of the country. Since the good land was withdrawn, the settlers were forced to take inferior lands which meant the utilization of water that could not thereafter be put to its best use. As a result the committee recommended the amendment that was approved August 30, 1890, in which that part of the act withdrawing lands from settlement was repealed.[56] Thus, the attempt of the Secretary of the Interior to gain his point by urging the maintenance of the literal provisions of the act had not met with Congressional approval.

In the meantime, Congress was still besieged with requests

[53] *G. L. O. R.*, 1890:61.

[54] *Ibid.* The provisions of the act upon which this opinion was based were: "all the lands which may hereafter be designated or selected by such United States surveys for sites for reservoirs, ditches or canals for irrigation purposes and all the lands made susceptible of irrigation by such reservoirs, ditches or canals are from this time henceforth hereby reserved from sale as the property of the United States, and shall not be subject after the passage of this act, to entry, settlement or occupation until further provided by law:

Provided, That the President may at any time in his discretion by proclamation open any portion or all of the lands reserved by this provision to settlement under the homestead laws."—*Statutes at Large* (1888) 25:527 (Washington, 1889).

[55] For the activities of this committee, see U. S. Congress, 51st, 1st sess., *Senate Report 928* (Washington, 1890).

[56] *Statutes at Large* (1890) 26:391 (Washington, 1891).

to take some action on arid lands. In the first session of the Fifty-first Congress more than fifty bills and resolutions pertaining to this problem were introduced and Congress accordingly passed an amendatory act, approved on March 3, 1891, which was designed to remedy the abuses.[57] In the first place it provided that the party making the entry would have to file a map indicating how he intended to irrigate the land and prove that his water supply was adequate for the purpose. This would eliminate taking land where there was no water, or merely to assign it to others for cattle raising.

In the second place, the act recognized the principle that irrigation could not be done satisfactorily by a single individual working entirely through his own efforts and provided that entrymen could associate together and file a joint map showing their irrigation plans. The importance of this partnership and cooperation plan is shown by the Census of 1910 which estimated that this method was used on nearly half of the acreage irrigated.[58]

The third feature of the act aimed to define reclamation in terms of the money expended on irrigation. When the Desert Land Act was first contemplated the question of what constituted reclamation and of how much water would have to be applied to meet the terms of the act was considered. The only answer made was that there should be enough "to make it an object for people to occupy the land."[59] From that time on, the problem had vexed the Secretary of the Interior. The amendatory act attempted to settle it by providing that at least $3.00 per acre must be expended and proof shown at the end of each year that $1.00 per acre had been spent to secure water. If in any year before the final entry was made, the entryman failed to show such proof, the land was to revert to the United States.

In the fourth place, the amendment limited the act to indi-

[57] *Ibid.* (1891) 26:1096-1097; 6 *Federal Statutes Annotated*, 395.

[58] U. S. Bureau of the Census, Thirteenth Census of the United States, 1910, *Bulletin, Irrigation* . . . 846 [Washington, 1911-12].

[59] *Congressional Record*, 5:1969 (Feb. 27, 1877).

viduals. Hitherto, the cattle companies, many of them controlled by English and Scotch bankers, had been able to acquire large areas of land by manipulating the entries. The amendment provided that the entrymen should be citizens of the United States, and, what was more important, that "no persons or association of persons shall hold by assignment or otherwise prior to the issue of patent, more than three hundred and twenty acres of such arid or desert lands, . . ." This provision was an attempt to limit the acreage by prohibiting corporations from taking more than 320 acres in addition to entries of the individual entrymen. The final section extended the operation of the act to Colorado.

The movement to repeal the Desert Land Act was unsuccessful, and beginning in 1891 irrigation entered upon a new era. The problems of operation had not been solved, and it remained for the future to see what could be done.

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